Beyond 2025

As part of this session, we would really like to better understand what digital developments you would like to see included in the balancing systems space beyond 2025, to help inform our investment plans as we move forward as NESO. We look forward to hearing your ideas and suggestions!

Data Transparency and Data Sharing

Current Expectations

- Open access to live data feeds, not just retrospective
- As much NESO-held data should be open and available in the Data Portal as possible
- Data should transfer between systems at a faster rate (e.g. real time - 24 hours)

How the current expectations are not met

- Access to live data only available to active market participants
- Slow data upload processes (e.g. ASDP once a week from SMP)
- Live data on transmission contraints not available so participants cannot help manage
- NESO constantly provides data to Elexon late or erronesously. Elexon gets blamed but NESO originates the issues
- FTP perfromance issue - using the LIST command can take up to 10 minutes to gain a list of EDT files
- Platform providers cannot access public data for multiple customers *from source* (i.e. only from Data Portal)
- 9999 EDT Cycle point - using the NLST command means TAs are limited to 9999 submissions in a 3 day period
- Performance data in dynamic response services is not published
- NonBM transparency only shows first price, not changes from period to period, or prices available to NESO that have not yet been dispatched
- NonBM transparency does not include ramp rates and other dynamic parameters
- NonBM transparency does not include availability, PNs, etc

How we can work towards a better digital future

- Implement a non-negotiable requirement/KPI that all new services have at least as good real-time and pre-dispatch transparency as the BM (and ideally better)
- Significantly improve reliability of data flows, especially transparency ones
- Formally recognise downstream data users (i.e. not just service providers) as stakeholders to consult, engage and build for
- Alongside every testing process between NESO and participants, there should be an equivalent testing process to ensure the usefulness and robustness of transparency publications

Enable Digital Access to wider range Market Participants - APIs, Protocols

Current Expectations

- Five nines of uptime
- Interfaces built on modern, industry-standard protocols
- Open and thorough documentation for all interfaces
- We are going through a process of modernising the NESO teck stack & making it fit for purpose
- Thorough technical communication through development process
- Reliable connectivity
- Implemented interfaces do conform to their specification

How the current expectations are not met

- ASDP regularly fails, with participants footing the cost
- Interfaces built on bespoke poorly-documented protocols like EDL
- Robust cybersecurity measures are needed to protect against data breaches, system disruptions, and manipulation.
- Interfaces based on outmoded technologies like file transfer and SOAP
- OBP comms are really good but for other projects it's a mixed bag
- Each project outsourced to someone different leads to varying approaches, technology choices, quality of communication and documentaton
- Documentation for older services is not up to scratch - Dynamic Response services docs are how they should all be.
- Statement of alternatives for MPs using ISDN Lines for EDT / EDL

How we can work towards a better digital future

- Recognise and include digital platform providers as a participant type
- WA API opened to larger units
- Replace FTP/SFTP with APIs
- Use of modern, industry standard, API interfaces
- Consolidate interface technologies - now we have EDL, EDT, SOAP, REST, GraphQL etc.
- Work with Elexon to deliver the Flex Market Asset Register proposed by Ofgem
- Explore dual tracking of existing interfaces (potentially suboptimal) with more modern interfaces
- Provide an immutable record of all transactions and decisions.
- Publish the full OBP rules / specifications. The summary slides are great, but presumably the actual rules have already been documented - share them
- Automate complex processes through the use of smart contracts.
- allow for decentralized governance, where stakeholders can participate in decision-making processes

Introduction of new services and upcoming market changes, i.e, REMA

Current Expectations

- There are going to need to be alot of changes, with finite capacity - changes required by service providers therefore need to be well managed
- Unifying vision for technical integration of new services
- Changes will need to be managed quickly

How the current expectations are not met

- Change can be slow
- It feels like every service is being developed from a blank sheet of paper, and we have to keep re-explaining the same things (especially re: transparency and reliability), with the same mistakes every time
- Different technical approach for every service, poor coherence across organisation
- Publish Grand Optimiser Design Philosophy RfP proposed in June Webinar

How we can work towards a better digital future

- Provide more/better test environments
- Persistent, long-lived testing/ simulation environments that software providers can run their testing environments against.
- Consistent centralised documentation for ALL services and the interfaces that support them
- Create standard service design / best practices (e.g. API norms, reliability, real-time transparency, open data) and require all NESO teams to at least meet that standard.
- Improved testing could allow for faster change
- Alongside every testing process between NESO and participants, there should be an equivalent testing process to ensure the usefulness and robustness of transparency publications
- Implement a non-negotiable requirement/KPI that all new services have at least as good real-time and pre-dispatch transparency as the BM (and ideally better)
- If Non-Functional Requirements will continue to be a problem, specify them!