The webinar will start shortly.
To maximise participation and minimise disruption we will be taking questions via MS Teams Chat, therefore your microphones are muted.
Please note that the webinar will be recorded.

Response & Reserve Reform

04 November 2021

nationalgridESO

Agenda

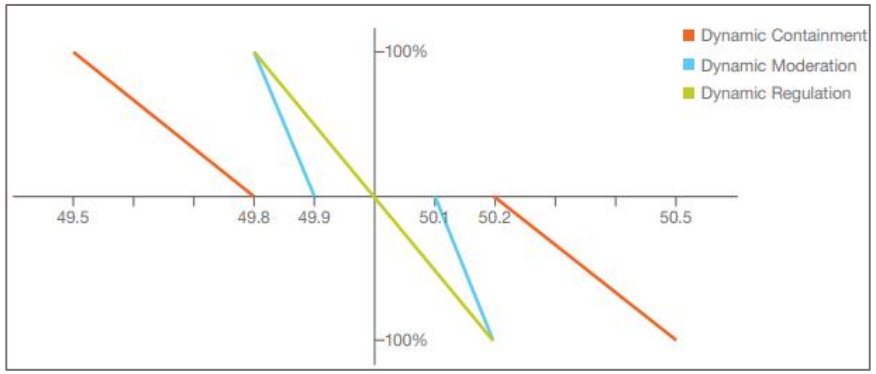
1. Overview of Response and Reserve Reform
2. Summary of Key Decisions
3. Service Designs: Dynamic Moderation & Dynamic Regulation
4. Update on Negative Slow Reserve

Response and Reserve Reform

Product Recap

Response:

- ✓ Dynamic Containment Low (DCL) – launched Oct 2020
- ✓ Dynamic Containment High (DCH) – launched Nov 2021
- Dynamic Moderation (DML & DMH)
- Dynamic Regulation (DRL & DRH)



Reserve:

- Four products earmarked for development – Quick Reserve (Positive & Negative) and Slow Reserve (Positive and Negative)
- Negative Slow Reserve (NSR) first, followed by Positive Slow Reserve (PSR) and Quick Reserve


A Summary of
Key Decisions

Key Decisions

- Deliver product reform through an agile approach
- Must ensure that the introduction of new products does not present unacceptable risk to the safe and secure operation of the network
- Ensure that the market has sufficient notice to develop the appropriate technical and commercial arrangements to participate in the new markets
- Aim to launch the products in the following order:
  - Dynamic Regulation
  - Dynamic Moderation
  - Negative Slow Reserve

Key Decisions

Aggregation Rules

- Aggregation at GSP Group – DM, DR and NSR
- Aggregation at GSP - DC

Bundling of Procurement

- Unbundled procurement (HF and LF procured separately) - DM and DR

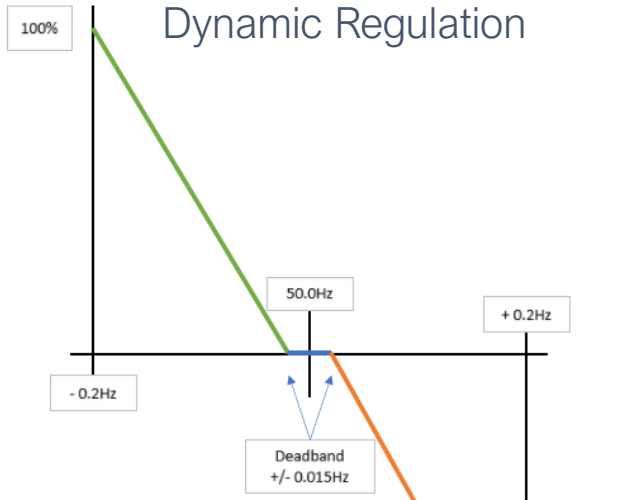
Operational Baselines

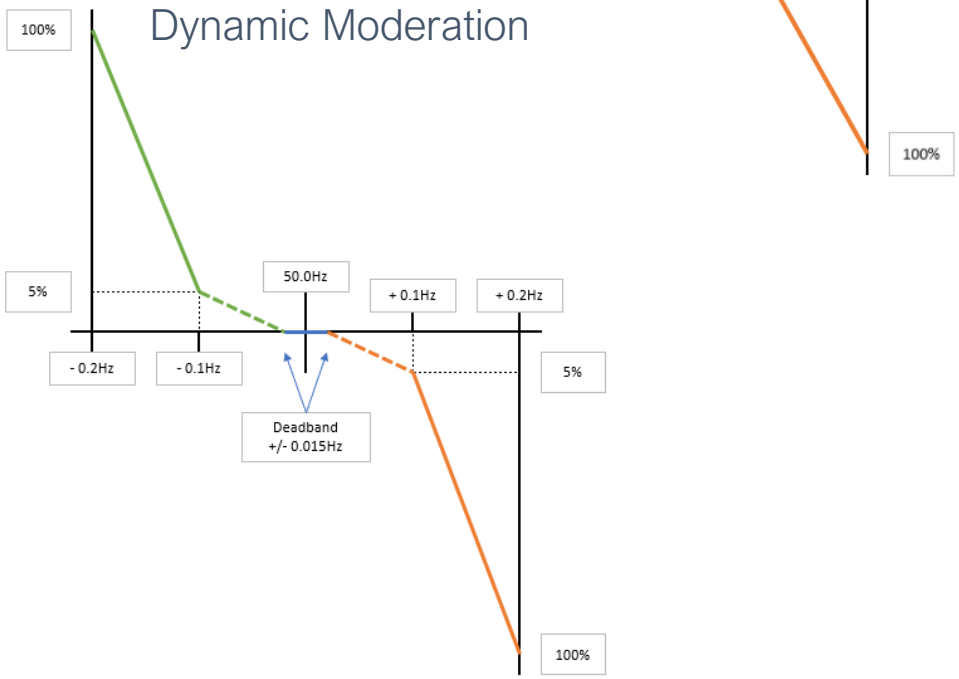
- Nomination baselines will be a requirement for day one for DM and DR
- Solution for non-BMs to submit operational baselines will be developed and delivered through future product releases


Dynamic Regulation &
Dynamic Moderation

Product Design – DM & DR

Topic	DM	DR
Speed of response	1 second	10 seconds
Pre/post fault	Pre-fault	Pre-fault
Delivery range	+/-0.1 -0.2 Hz	+/-0.015 -0.2 Hz
Deadband (delivery %)	+/-0.015 (0%)	+/-0.015 (0%)
Initial linear range (delivery %)	+/-0.015 -0.1 (5% at +/-0.1Hz)	+/-0.015 -0.2 Hz (100% at +/-0.2Hz)
Knee point	+/-0.1Hz	No knee point
Second linear range (delivery %)	+/-0.1 -0.2 (100% at +/-0.2Hz)	n/a
Full delivery point	+/-0.2Hz	+/-0.2Hz
Max ramp start	0.5 seconds	2 seconds





Service Design for “day one” – DM & DR

Topic	Day 1
Aggregation	GSP Group
Bundling of Procurement	Unbundled – linked bids available
Procurement Platform	EPEX platform
Auction	Day ahead
Period	EFA block
Settlement Basis	Pay As Clear (Availability)
Auction Timings	Auctions run simultaneously at 14:30
Stacking	Stack only with the BM

Service Design for “day one” – DM & DR

Topic	DM	DR
Duration of Energy Limited Assets	30 mins	60 mins
Operational Metering	1Hz	
Performance Metering	20Hz	2Hz*
Operational baselines	60-minute nomination baseline	
Performance baselines	Submitted retrospectively, allows up to 4d.p.	
Unit cap	50MW	
Initial volume requirement	100MW per service for launch	

* Performance metering for DR will be 2Hz, however we are implementing a transition phase, allowing 1Hz for the first 6 months

DM & DR – Next Steps

- Launch EBR Art. 18 Consultation – 15 November
- Markets Day – 18 November
- Consultation support
  - Service Terms video
  - Overview webinar
  - Technical webinar (topics to be confirmed)


Negative Slow Reserve

Product Design - NSR

Product Criteria	Specification
Minimum Unit Size	1MW
Full Activation Time	Full output at 15 minutes from instruction
Minimum Activation Time	Up to 30 minutes, as specified by providers
Maximum Activation Time	A minimum of 120 minutes
Maximum Recovery Period	A maximum of 30 minutes

NSR - Delivery

- We are reviewing what enablers need to be in place on Day 1 for NSR service development:
    - IT infrastructure upgrades are required, including scheduling and dispatch processes for negative reserves
    - A baselining solution needs to be developed for visibility and control of non-BM assets
- More NSR functionality will be delivered in later product releases
- We will provide more information on Markets Day on 18 November

Q&A

Please submit your questions via Teams chat

If you have further questions or feedback, please send them to:
box.futureofbalancingservices@nationalgrideso.com

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