



Reserve Reform Show & Listen 2

26 May 2022

Agenda

1. Review of Show & Listen 1
 - a) General clarification of Q&A – e.g. product duration
2. Discussion points
 1. Service windows
 2. Auction timings
 3. Metering
 4. Baselines
3. Looking ahead to our next Show & Listen event

How to engage

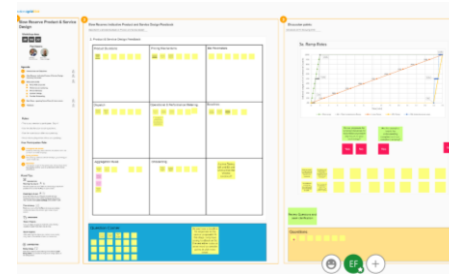
- We will be using Mural to gather detailed feedback
- If you have a clarification question or discussion point, please use the raise your hand function in MS Teams and wait to be called
- We will be recording the session in order to make sure we capture all feedback, this will not be published or shared

Recap of Show & Listen 1

- We shared an overview of two new Slow Reserve products – Positive Slow Reserve and Negative Slow Reserve.
- Key discussion points included our proposals for ramping tolerances, product durations, performance monitoring and provider onboarding. We captured your feedback on Mural – a copy of the board can be located using the link below.



Slides

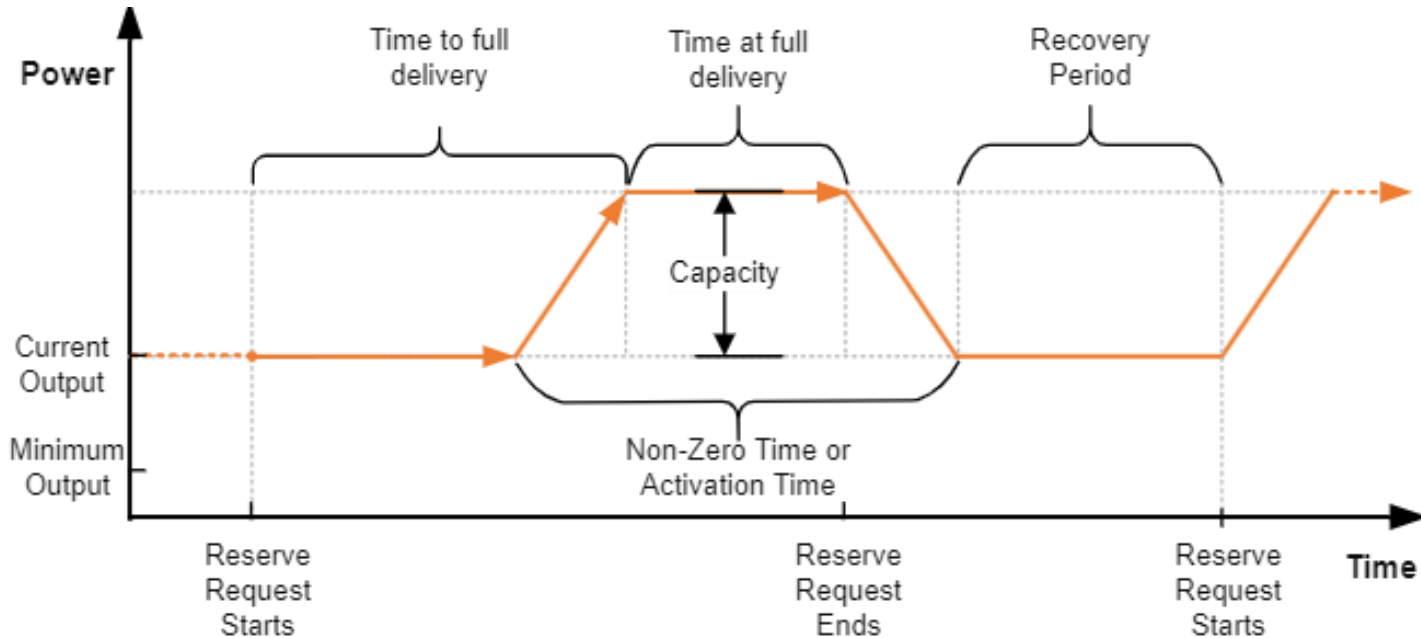


Mural

- Since our last session, we have refined our proposals for auction timings and service windows which we would appreciate your feedback on today.

Recap of Show & Listen 1

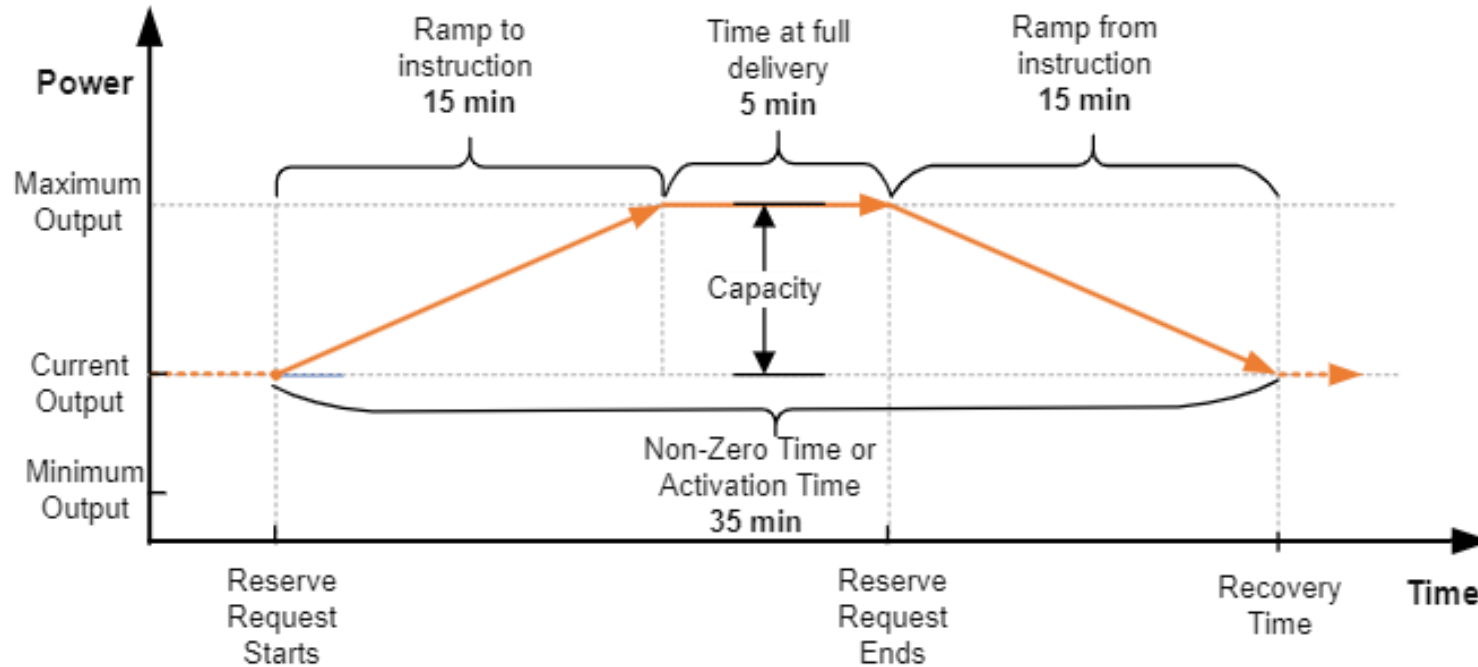
Activation Time or Non-Zero Time



- Activation Time or Non-Zero Time for assets at 0MW baseline.
- Min. Activation Time ≤ 30 min
- Max. Activation Time ≥ 120 min

Recap of Show & Listen 1

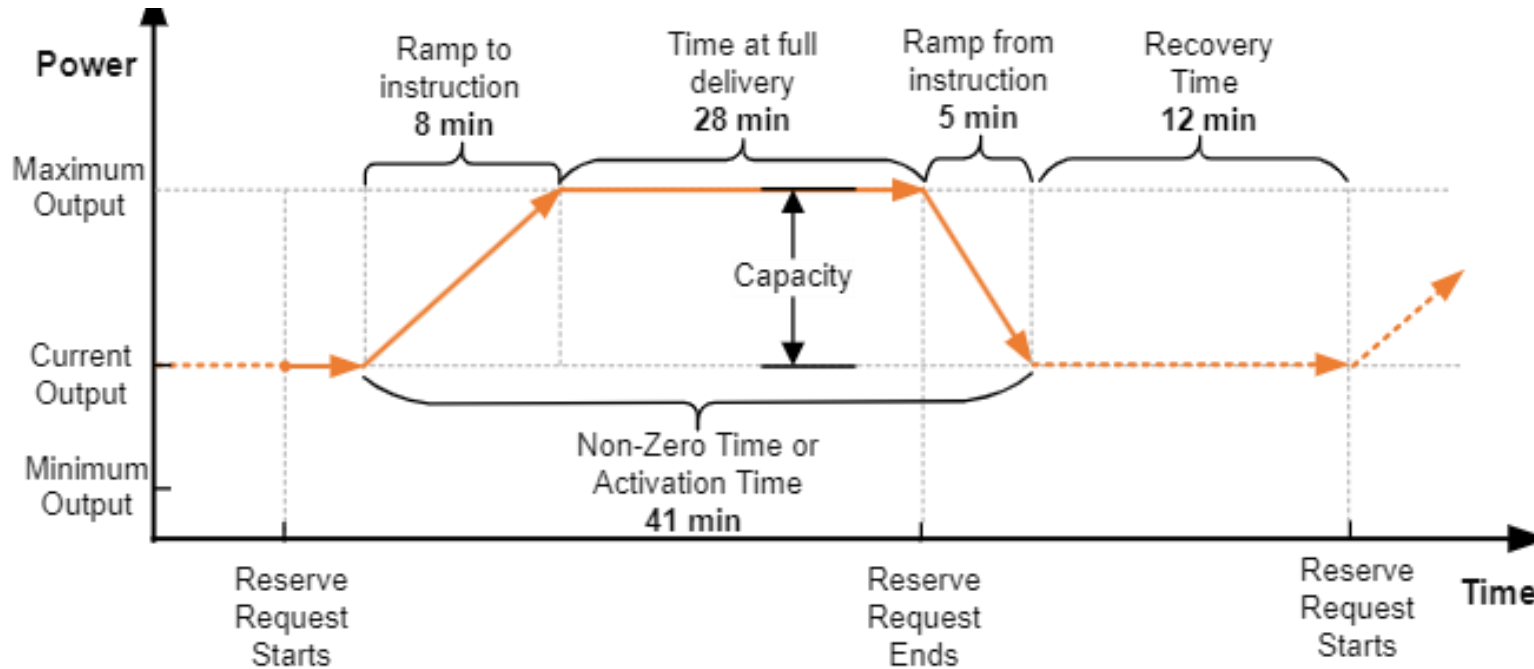
Activation Time or Non-Zero Time – Example of delivery



- Ramp to instruction = 15 min
- Time at full delivery = 5 min
- Ramp from instruction = 15 min
- Activation Time = 35 min

Recap of Show & Listen 1

Activation Time or Non-Zero Time – Example of delivery

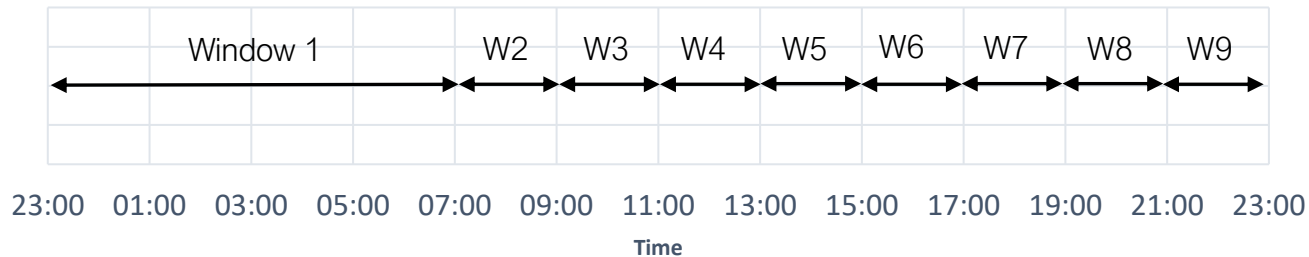


- Ramp to instruction = 8 min
- Time at full delivery = 28 min
- Ramp from instruction = 5 min
- Activation Time = 41 min
- Recovery Time = 12 min

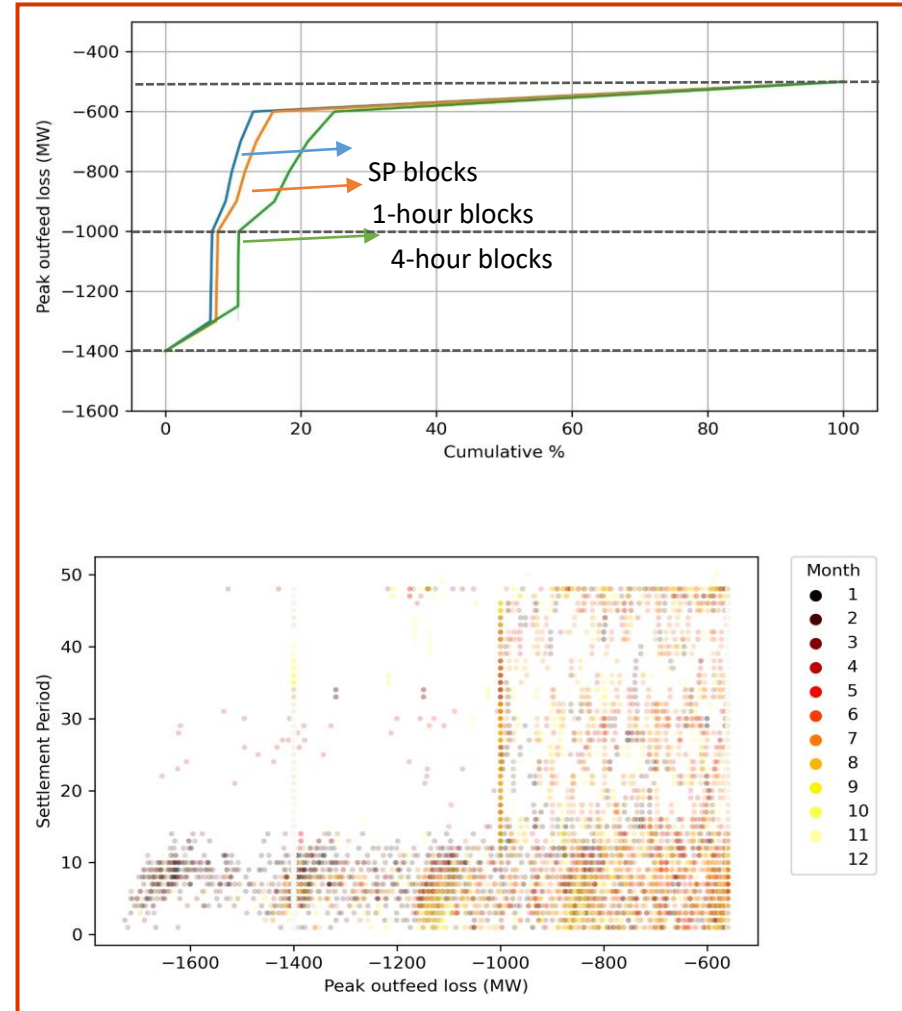
Slow Reserve – Service Windows

- The **Service Windows** refer to the period of time in which providers must have their assets ready for delivery if instructed by the Control Room.
- If the Service Windows are too long, some units with variable outputs (e.g. DERs) might be excluded from the market.
- Longer windows generally lead to over-holding, as NGENSO would need to procure the maximum requirement over the full window length.
- If the windows are too short, then the number of transactions and associated costs could be difficult to manage.

Current proposal for NSR



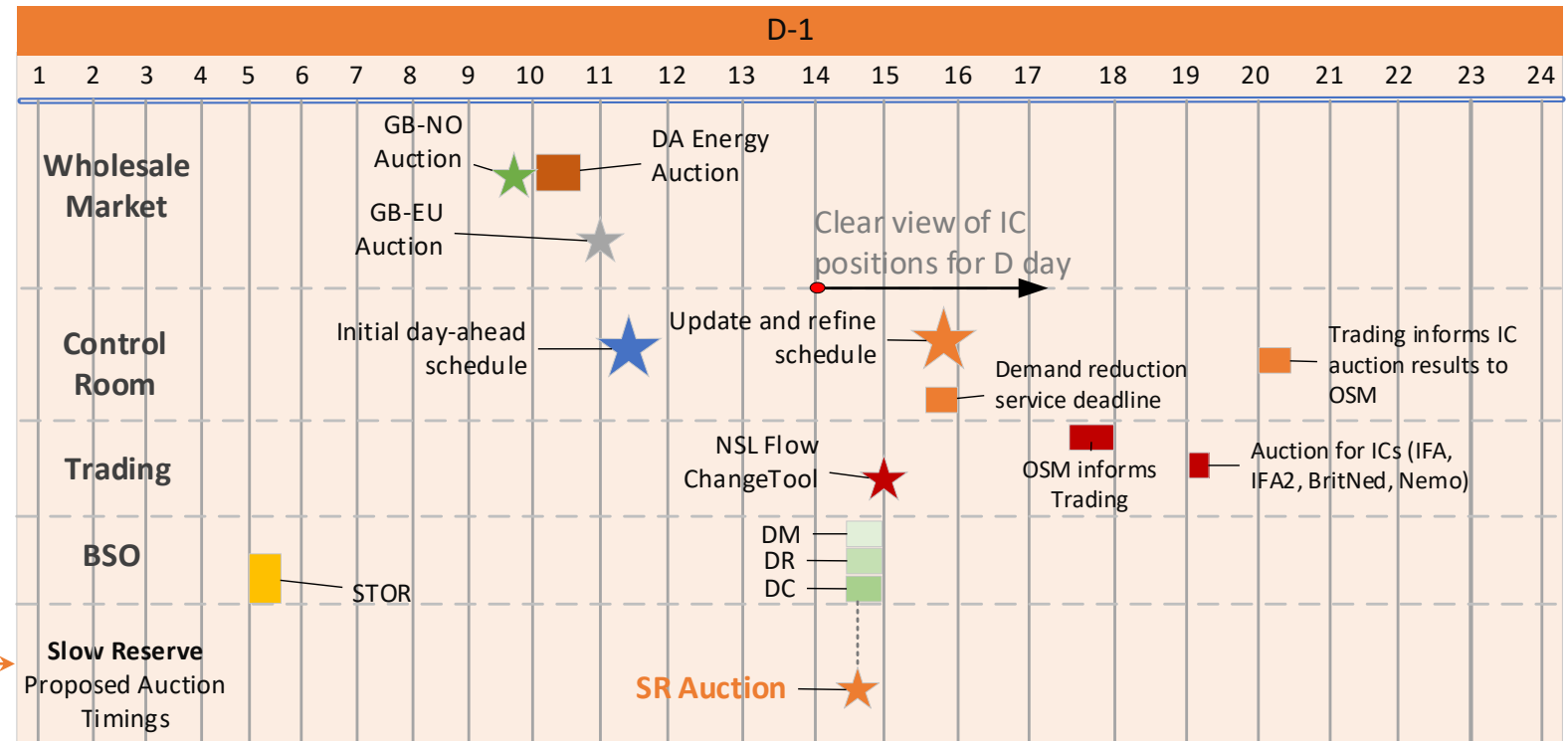
NSR Requirement



Slow Reserve – Auction Timings

- Based on industry feedback, a single daily auction for availability is proposed.
- This replaces previous two-auction proposal (AM/PM) in favour of market simplicity/efficiency.

- ❑ Simultaneous with Response Auction (14:30h).
- ❑ Allows future interaction response + reserve.
- ❑ Close enough to delivery. (Better estimates for DER).
- ❑ Clear view of the IC positions for the day-ahead so a more accurate estimate of the requirements can be used.

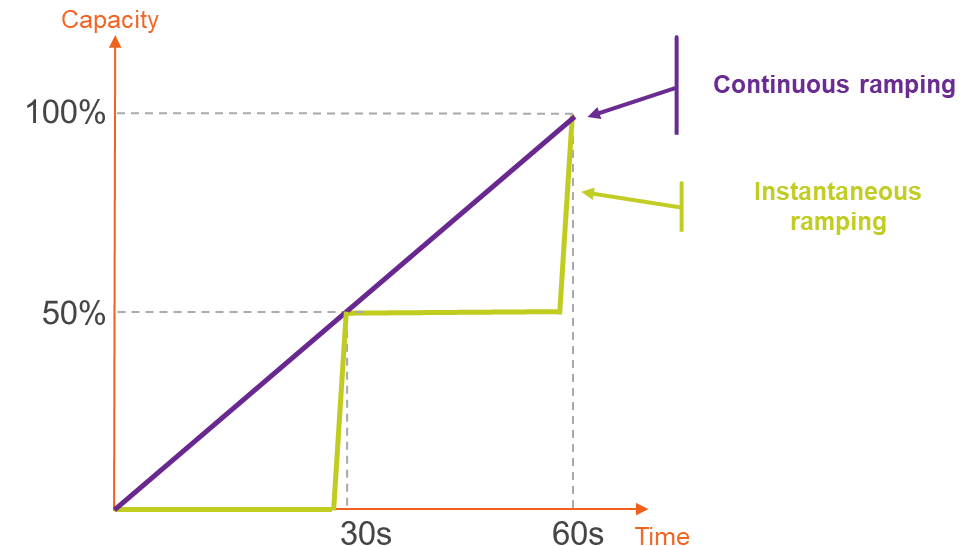


Slow Reserve – Metering

- We require two types of metering for Slow Reserve – operational and performance metering.
- Operational metering provides our control room with critical real-time visibility, as well as facilitating better demand forecasting and prediction.
- Performance metering allows us to monitor and settle the Slow Reserve service.
- Both of these are in place for existing Reserve products

Slow Reserve – Metering

- We are proposing that Slow Reserve has 1Hz (once per second) read frequency for both operational and performance metering for all participating units.
- **Operational metering** frequency to align with the Balancing Mechanism. It is needed to aid control room visibility of units when dispatched and ramping. We are also developing new systems which will enhance forecasting capability, also improved by more granular metering data.
- We are also aligning with work being explored through Power Responsive to reduce the operational data burden on aggregated portfolios.
- For **performance metering**, it is important to be able to check compliant ramping within the envelope for performance monitoring purposes.
- We would not be able to do this with 1-minute granularity data, as per STOR.

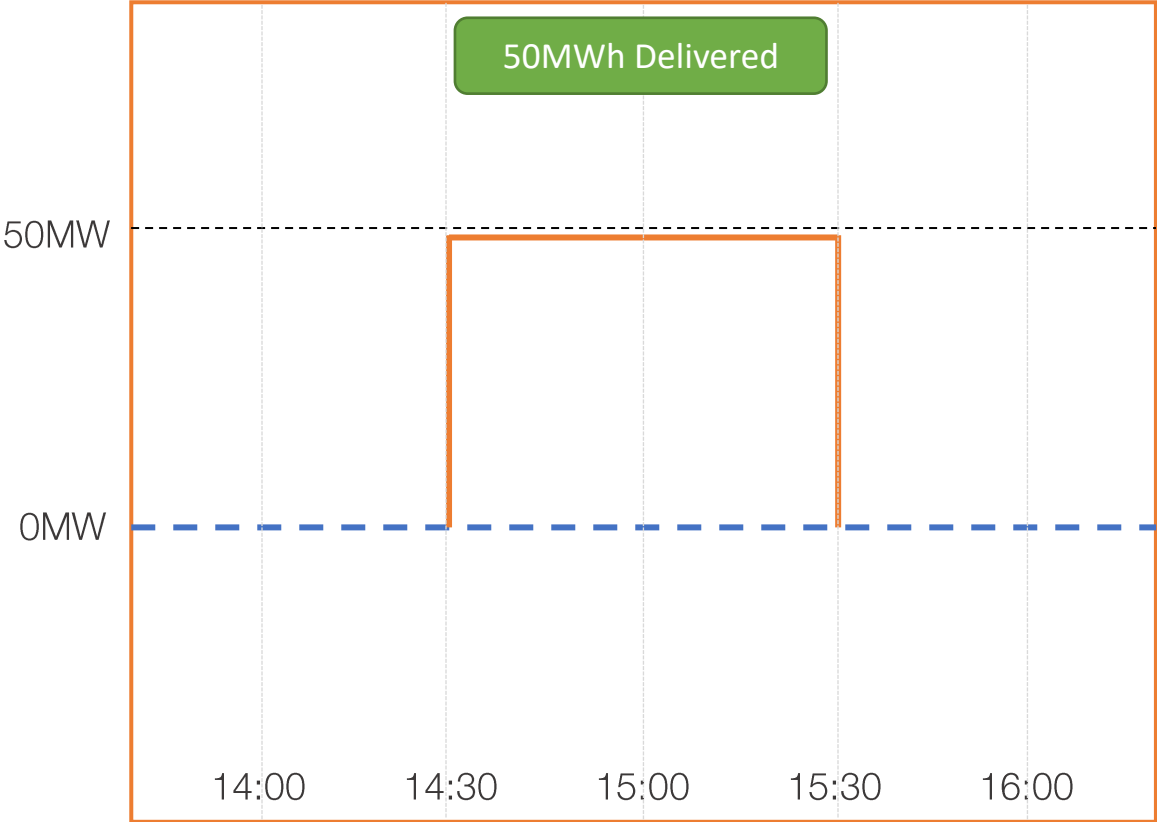


Slow Reserve – Baselines

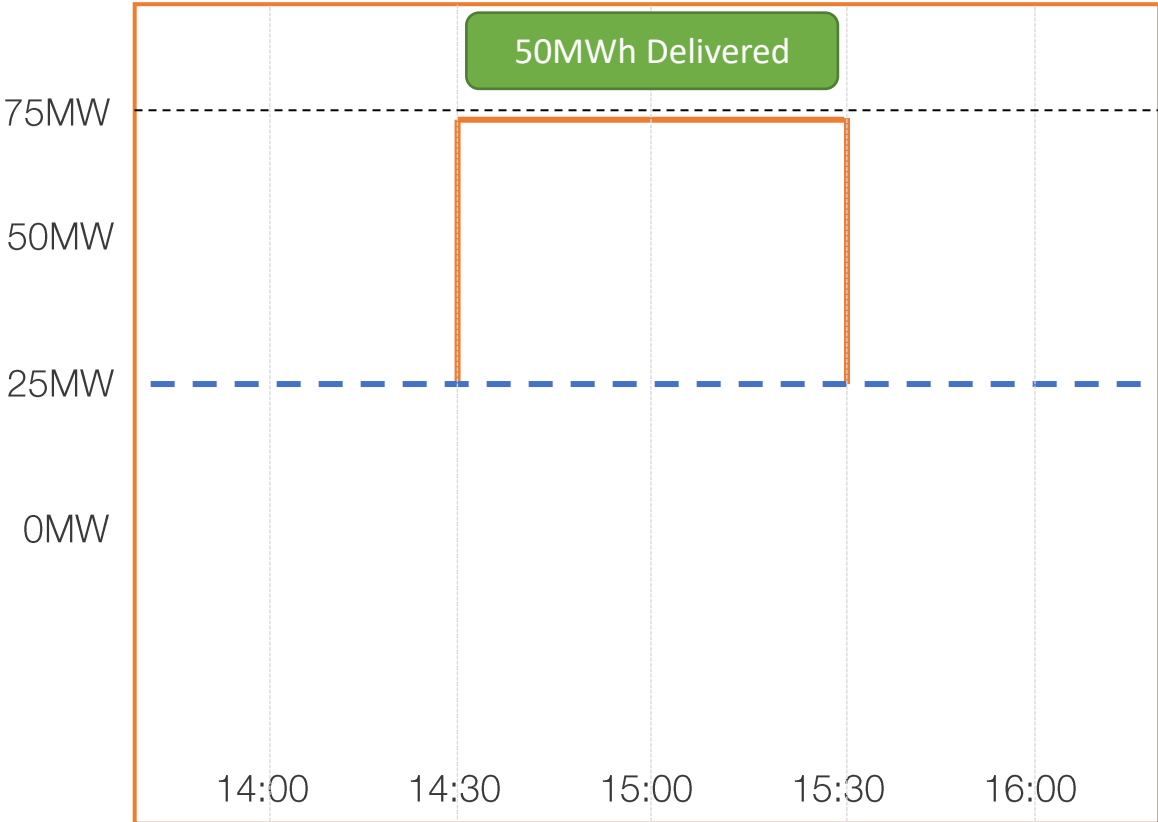
- We require baselines for both operational and performance purposes. They provide visibility to our control room of expected asset output and help create a datum against which to monitor performance.
- The Balancing Mechanism is founded upon a nomination baselining technique – known as the Physical Notification.
- New Response services DC, DM & DR have also adopted a PN-style operational baseline and we are proposing that the new Reserve products also implement this as a Day 1 solution.
- 60-minute nomination baselines will be expected from both BM and non-BM participants for both Positive and Negative Slow Reserve products.
- The nomination-style baseline is broadly supported by industry; however, we recognise the challenges which some industry participants have with forecasting output 60+ minutes ahead.
 - We are working with industry to explore alternative ways of baselining, such as using a data-derived approach to isolate critical site load from balancing services response.

Slow Reserve – Baselines

Positive Slow Reserve – Deviation from zero baseline



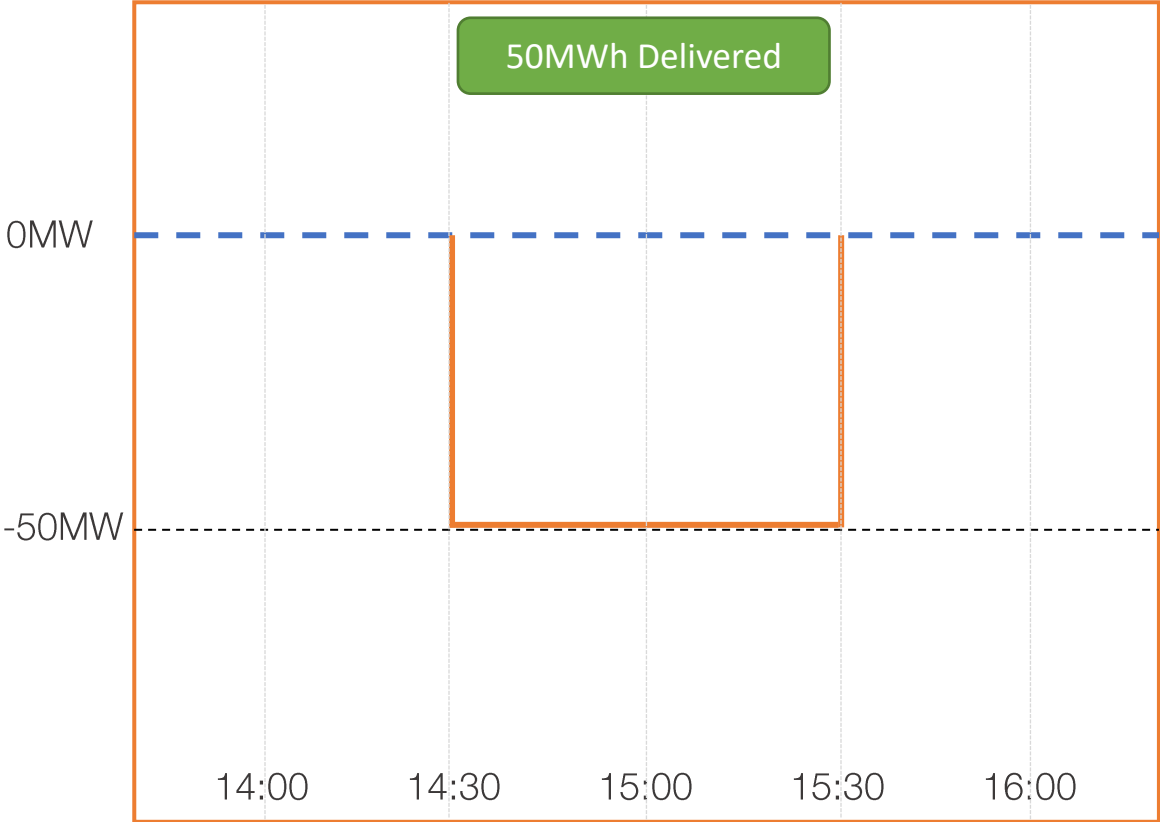
Positive Slow Reserve – Deviation from non-zero baseline



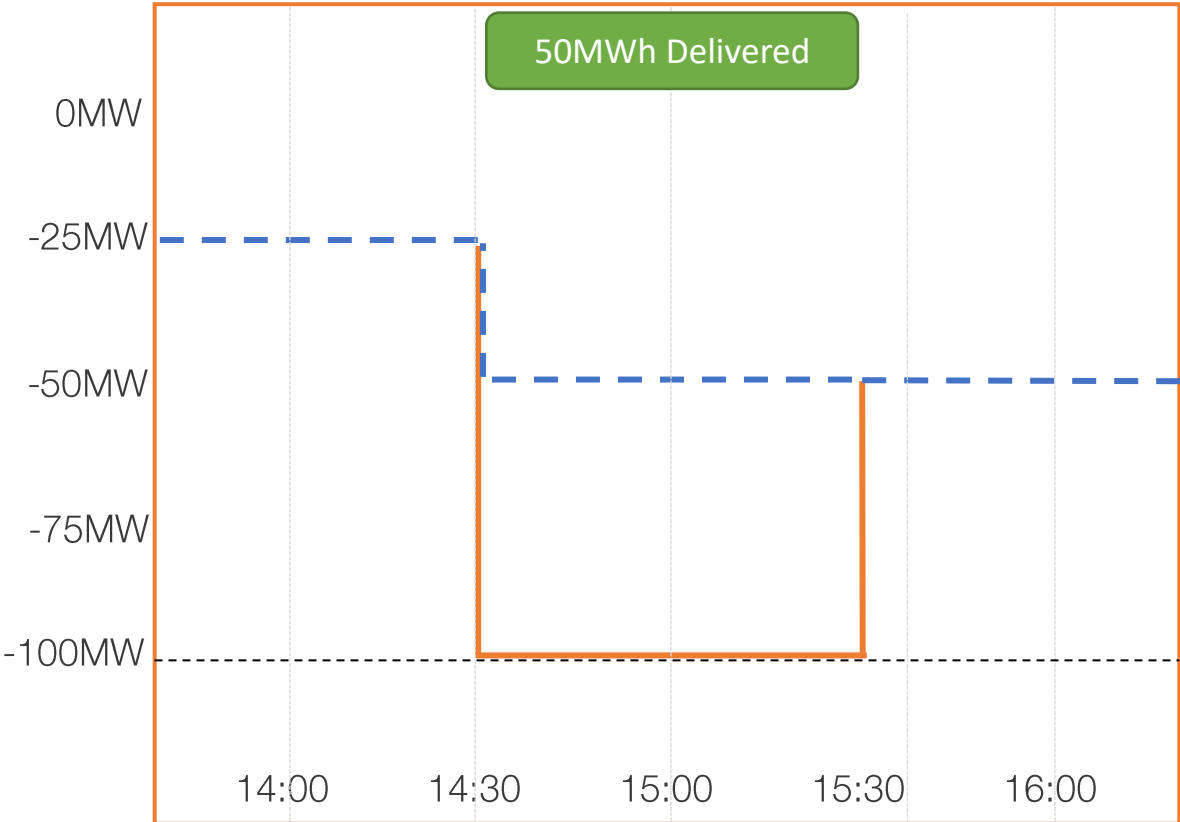
--- Reserve Baseline
— Service Delivery

Slow Reserve – Baselines

Negative Slow Reserve – Deviation from zero baseline



Negative Slow Reserve – Deviation from non-zero baseline

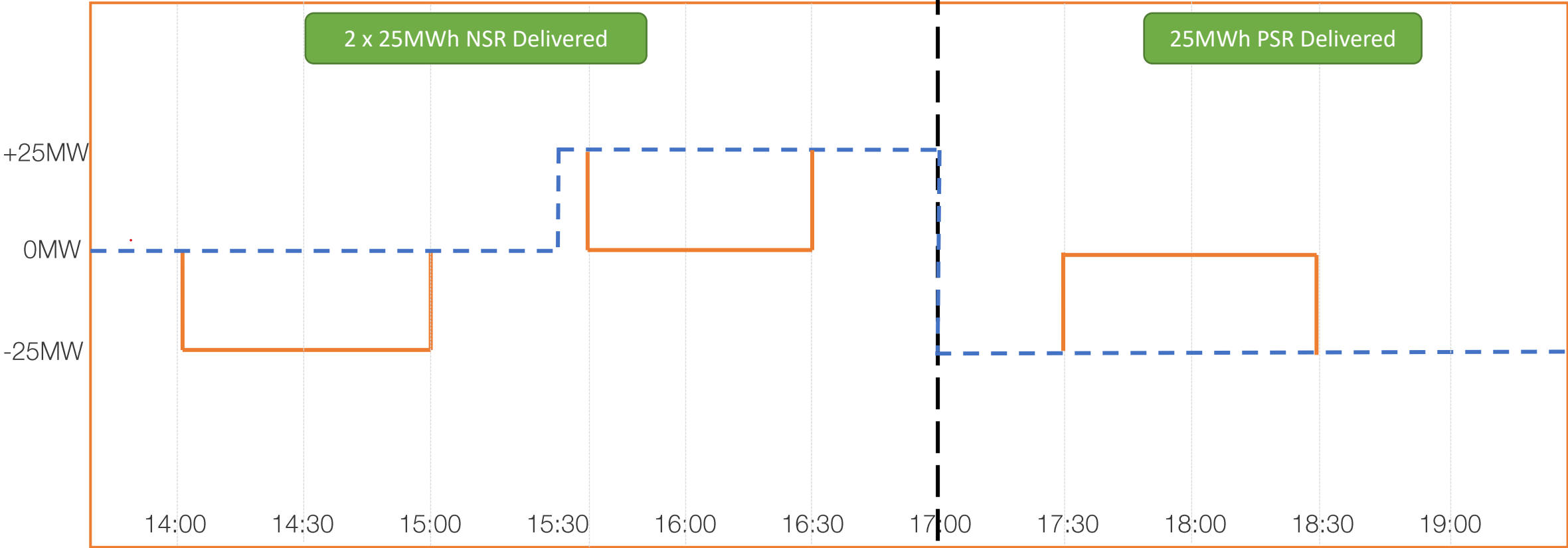


--- Reserve Baseline
— Service Delivery

Slow Reserve – Baselines

Negative & Positive Slow Reserve – Deviation from non-zero baseline

Service Window Boundary



--- Reserve Baseline
— Service Delivery

Slow Reserve – Next Steps

- Feedback from today's session – does this style and structure work for you?

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- We would like to propose another session in June where we hope to share more information around other Reserve products.

- Further written feedback appreciated via the Slow Reserve Feedback Proforma

(<https://www.nationalgrideso.com/industry-information/balancing-services/future-balancing-services>)



Appendices

Slow Reserve – Timeline

Service	BM dependency	NBM dependency
Optional	Ofgem approval	Ofgem approval ASDP release
Firm	Balancing Transformation release Enduring Auction Capability project	ASDP release Enduring Auction Capability project

Dependency	Estimated timescales
Ofgem approval	4 months
ASDP release	6 months
Balancing Transformation release	12+ months (tbd)
Enduring Auction Capability project	Q4 22/23

Slow Reserve: Indicative Product & Service Design

Product Criteria	Proposal
Minimum Capacity	1.0MW of generation reduction (increase) / demand increase (reduction)
Full Activation Time	Providers must reach full activation within 15 minutes of instruction
Maximum Activation Time	A minimum of 120 minutes
Minimum Activation Time	A maximum of 30 minutes
Maximum Recovery Period	A maximum of 30 minutes
Aggregation rules	Providers can aggregate units within a GSP Group
Market Window	A series of service windows across the operational day
Availability Pricing	Pay-as-clear (Day-ahead)
Utilisation Pricing	Pay-as-bid (Within-day)
Dispatch Solution	BM – BOAs / Non-BM - ASDP
Linking of Bids	No linking of bids between products or procurement windows
Stacking	No stacking with other ancillary services
Operational Metering	1Hz
Performance Metering	1Hz
Ramp rates	As per envelope restrictions
Baselining	60-minute nomination baseline

Meet The Team



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