

Public

Please submit all questions in the chat.

This session is recorded and will be published alongside the slides and Q&A.

# Response Reform

Draft real-time service

26 March 2025

# Service Design and implementation Timelines



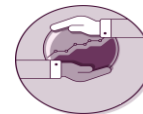
Needs case



Options  
assessment



Service  
design



Formal  
Consultation



Go Live



Engagement

Mandatory  
Frequency Response  
reform



Static Response  
Reform



Locational  
procurement



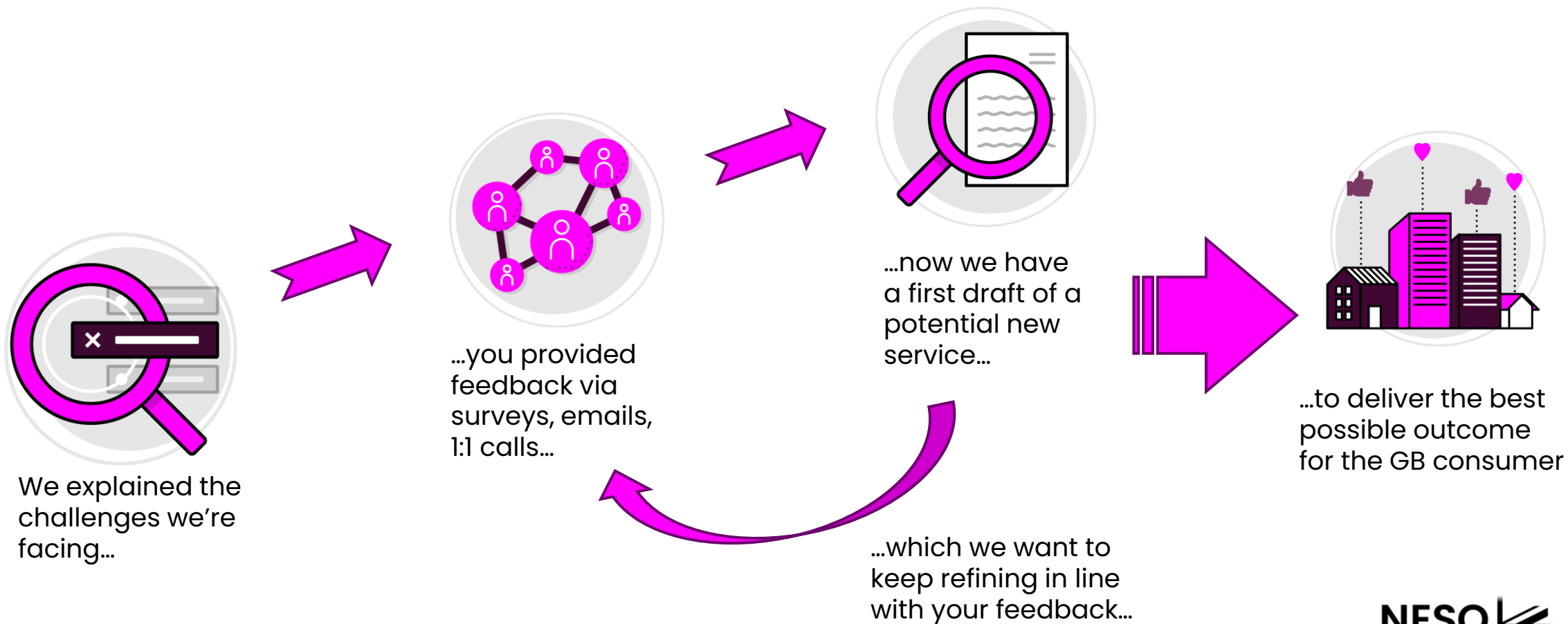
30 Minute Service  
Window



Stacking Response /  
Reserve



# Where we're at: Iterative Design



## A Brief Recap

Mandatory Frequency Response (MFR) is becoming unfit for purpose:

- Slow post-fault delivery
- Limited pre-fault support
- Non-compliant procurement

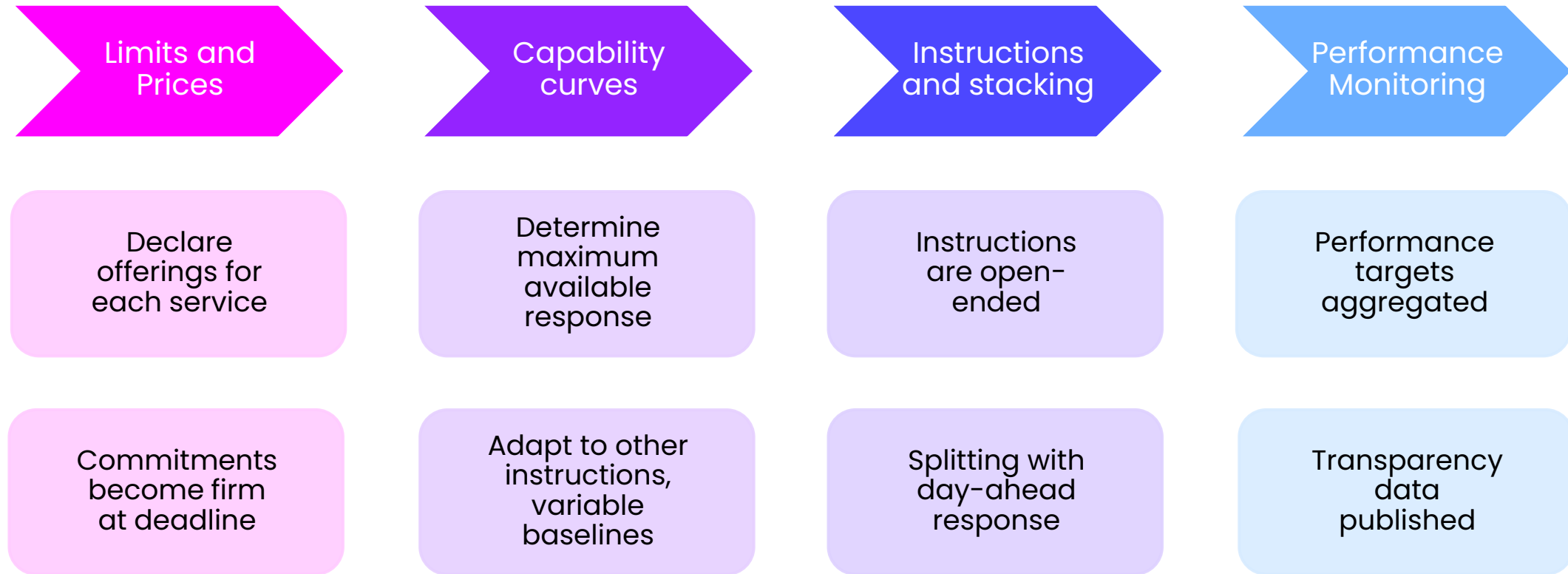
New real-time  
Dx service

New units provide  
new service  
instead of MFR

Existing MFR  
providers transition

MFR gradually  
winds up

# Key Design Elements



# Limits and Prices

**Limit:** the maximum instruction (in MW) the unit will accept (for that service). May exceed capability for some or all of the period.

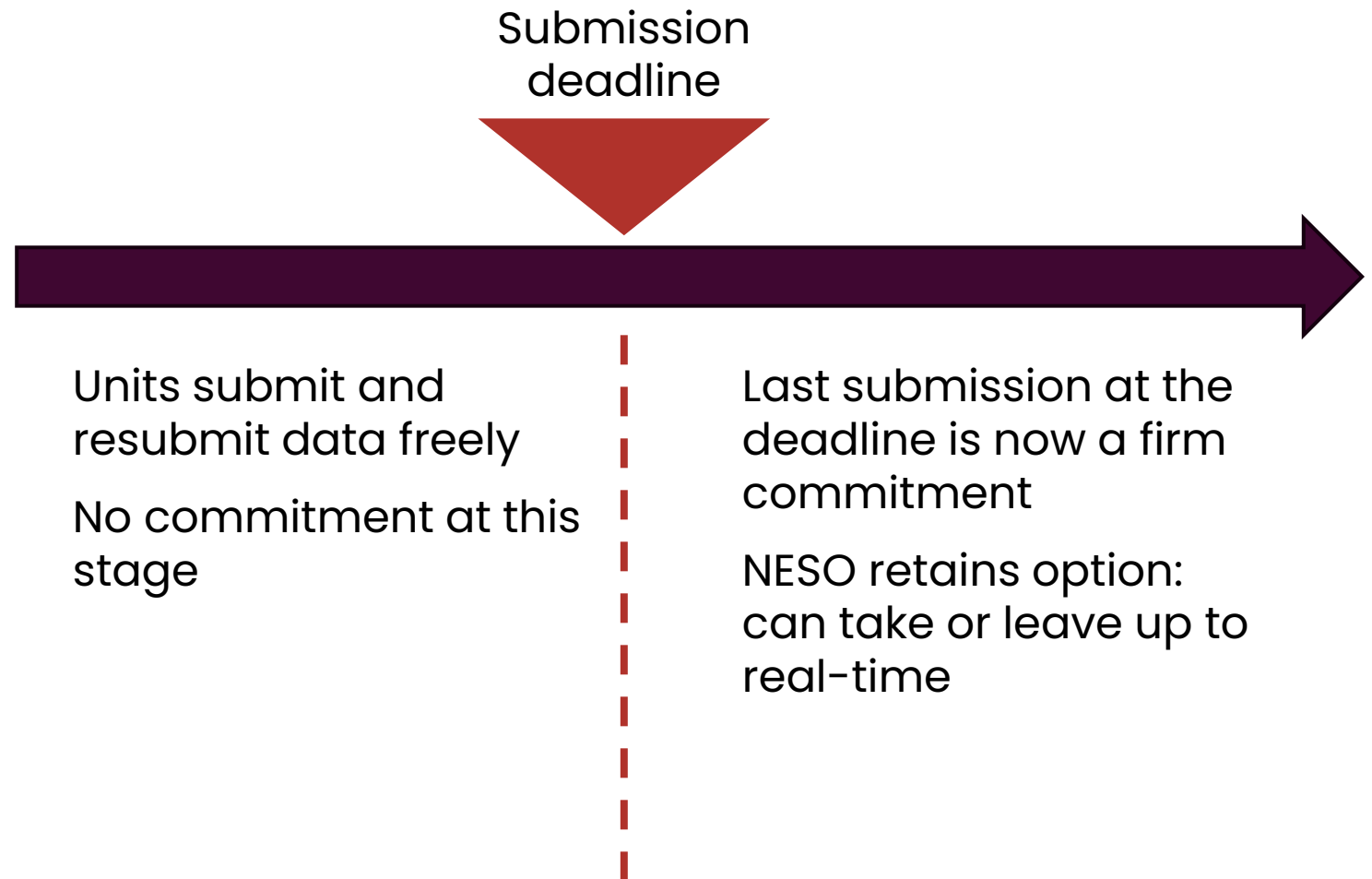
**Price:** per MW per hour price for instructions (for that service) if any are issued.

Both limits and prices will be submitted on a half-hourly granularity  
Submission opening/closing time tbd

Ideal final state would align with BM data submissions (7 days ahead/gate closure)

**Clearing: Pay-as-Bid**

# Optionality



# Capability: Head/Footroom

- Units will have variable baseline and/or will receive BOAs
- Available response will vary accordingly
- As a first step, we calculate headroom (how far the operating level is below maximum) and footroom (how far the operating level is above minimum)
- “Operating Level” = unit’s expected position, including instructions and other obligations.



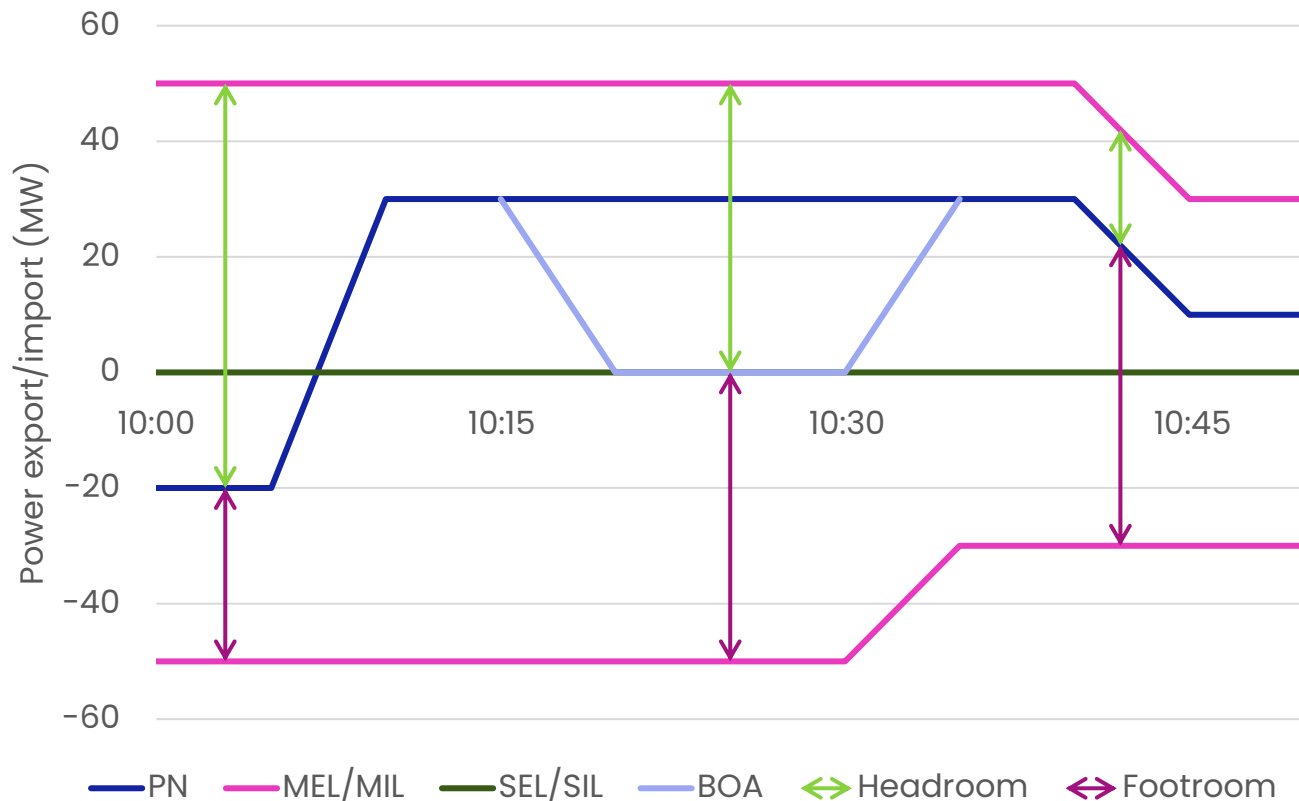
# Capability: Head/Footroom

## Relevant data:

- MEL (Maximum Export Limit): BM
- MIL (Maximum Import Limit): BM
- Maximum Generation/Demand: NBM
- PN (Physical Notification): BM
- Operational Baseline: NBM
- SEL (Stable Export Limit): BM
- SIL (Stable Import Limit): BM

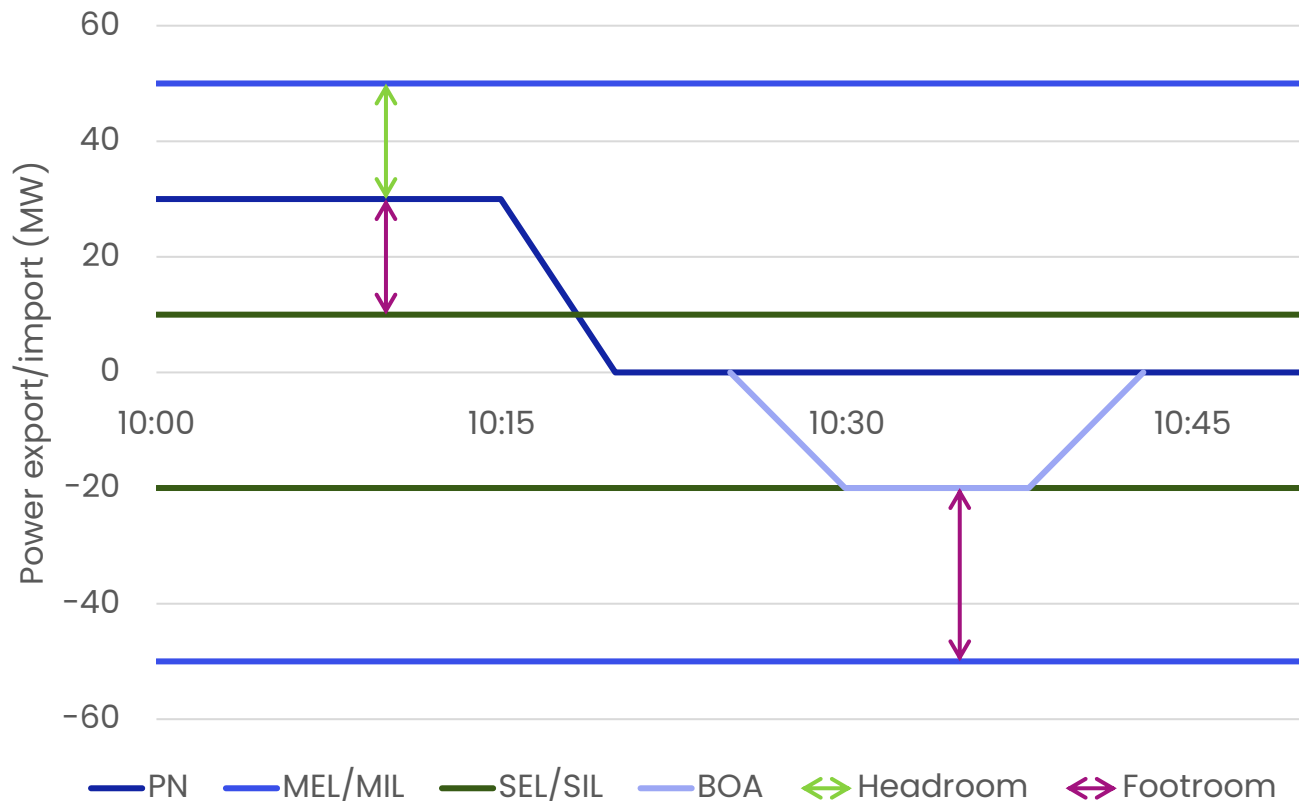
- Units will have variable baseline and/or will receive BOAs
- Available response will vary accordingly
- As a first step, we calculate headroom (how far the operating level is below maximum) and footroom (how far the operating level is above minimum)
- “Operating Level” = unit’s expected position, including instructions and other obligations.

# Capability: Head/Footroom



- Units will have variable baseline and/or will receive BOAs
- Available response will vary accordingly
- As a first step, we calculate headroom (how far the operating level is below maximum) and footroom (how far the operating level is above minimum)
- “Operating Level” = unit’s expected position, including instructions and other obligations.

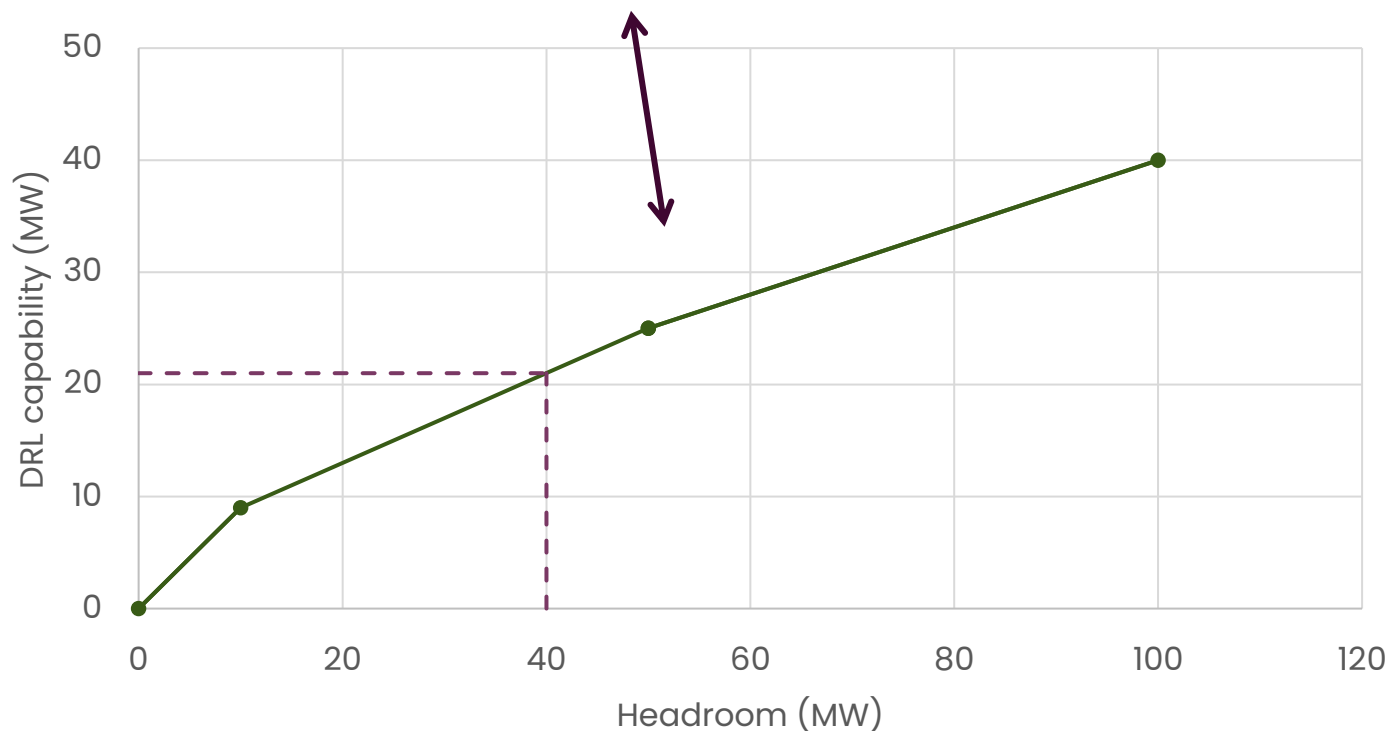
# Capability: Head/Footroom



- Units will have variable baseline and/or will receive BOAs
- Available response will vary accordingly
- As a first step, we calculate headroom (how far the operating level is below maximum) and footroom (how far the operating level is above minimum)
- “Operating Level” = unit’s expected position, including instructions and other obligations.

# Capability Data

Headroom MW:	LF0: 0	LF1: 10	LF2: 50	LF3: 100	LF4: -
DRL MW:	0	9	25	40	-



- The unit's headroom (or footroom) is compared with the unit's capability data for the service in question
- The corresponding capability is the **maximum** response the unit can provide
- Capability data would be submitted once (per unit, per service) and updated rarely if ever
- Values between points are interpolated linearly

# Instructions

- Time (to nearest second)
- Service (including direction)
- Unit ID

Start and cease  
separately

2-minute lead  
time

Instructions can  
be rejected but  
only on technical  
grounds

In future: add the  
option for "partial  
instructions"

# Service Stacking

## **With other in-day Dx**

- Freely in opposite directions
- In future: in same direction, where unit is able to receive partial instructions

## **With other in-day response**

- No stacking due to inflexible structure of existing services

## **With day-ahead Dx, quick and slow reserve**

- Splitting allowed
- Real-time limits submitted must protect day-ahead obligations (both concurrent and future)

## **With Balancing Reserve and BM**

- Splitting allowed
- Co-delivery allowed

# And the rest

## Performance Monitoring

- Day-ahead and in-day delivery will be performance monitored in aggregate per 30-minute period
- Performance bounds, ramping rules, k-factor calculation all match existing methodology

## State of Energy

- Units must hold enough energy to deliver against day-ahead commitments and intraday limits
- Real-time SoE monitoring

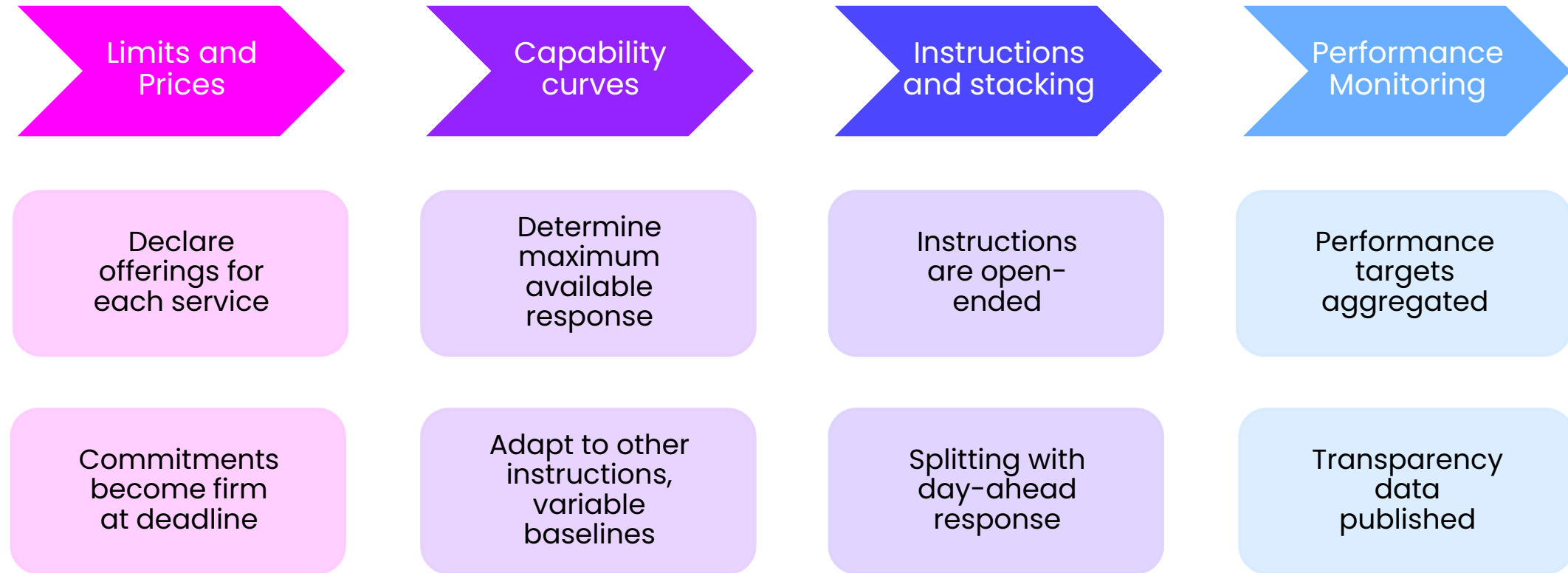
## Availability

- Existing unavailability notifications will cover both DA and ID services

## Transparency

- We will publish:
  - Capability Curves
  - Limits (as at deadline)
  - Prices (as at deadline)
  - Issued instructions
  - Periods of unavailability

# Key Design Elements





# Feedback, feedback, feedback

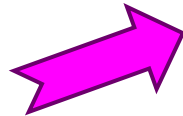
This is a **draft** service design

Please complete the following MS Forms with any feedback:

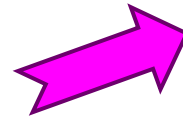
<https://forms.office.com/r/uc38f4ydAc>



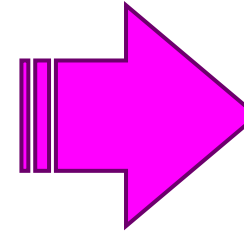
We explained the challenges we're facing...



...you provided feedback via surveys, emails, 1:1 calls...



...now we have a first draft of a potential new service...



...to deliver the best possible outcome for the GB consumer



...which we want to keep refining in line with your feedback...



Public

# Other Dynamic Response Updates



# Joint C9 and Dynamic Response A18 Consultation

Respond to the ad hoc C9 and Dynamic Response A18 consultation before **17:00 07 April 2025**.

NESO have launched a joint ad hoc C9 Consultation which introduces changes for Quick Reserve Phase 2 launch, as well as C9 changes for ABSVD for Response and an Article 18 consultation to facilitate the application of ABSVD to Non-Balancing Mechanism Units (Non-BMUs) in the Dynamic Response Market.

Access the [consultation document](#) for full proposals and details on how to respond.

If you have any questions, contact: [balancingservices@nationalenergyso.com](mailto:balancingservices@nationalenergyso.com)

# Updated SOE Guidance

Following two SOE drop in session, we have now published:

- an updated version of the [FAQ document](#) which covers questions asked during these session
- an updated version of the [SOE Guidance](#) to include a technical explanation of the exceptional circumstances prescribed in the Dynamic Response Service Terms as well as advice on how to protect response capacity when participating in the Balancing Mechanism (BM).

If you have any questions, contact: [balancingservices@nationalenergyso.com](mailto:balancingservices@nationalenergyso.com)