



Balancing Reserve Webinar

Tuesday 22nd November 2022

- The webinar will start shortly
- Please make sure your microphone is muted and your camera is turned off
- We will be using Slido for questions and the code is #[BR2]. Please add your questions into Slido

Agenda

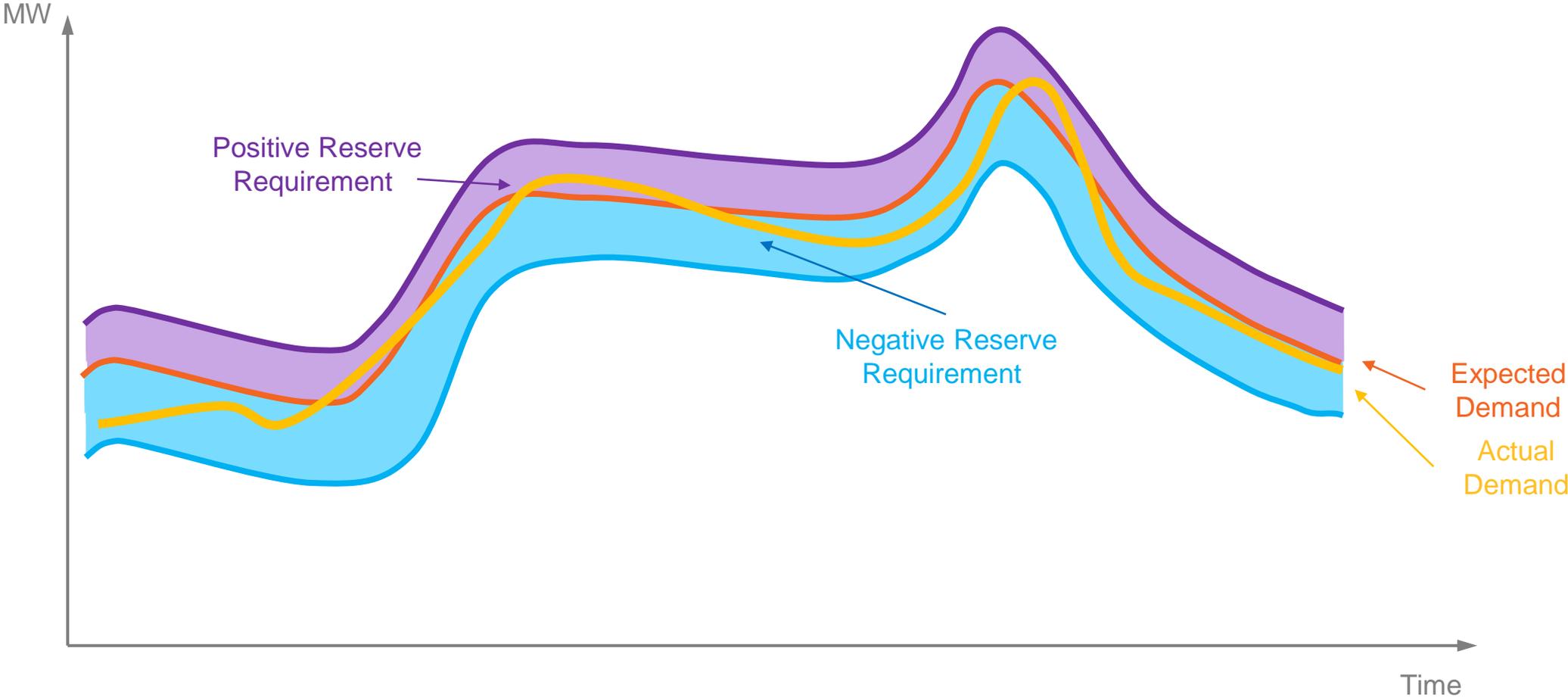
Topic	Presenter	Timing
Welcome and Housekeeping	Yuting	11.00-11.05
Service Design: <ul style="list-style-type: none"> Recap of why are we doing this? Summary of reviewed topics and changes What has changed as a result of the feedback 	Eleanor, Ewa and Mike	11.05-11.20
Overview of Auction	Charlie/Shubhangi	11.20-11.25
SMP Onboarding and Prequalification	Mili	11.25-11.30
EBR Article 18 Consultation	Vicci	11.30-11.35
Overview of Delivery Plan	Yuting	11:35-11:40
Question and Answers	Vicci / All	11.40- 12.20
Next Steps and Close	Yuting	12.20-12.25

Service Design

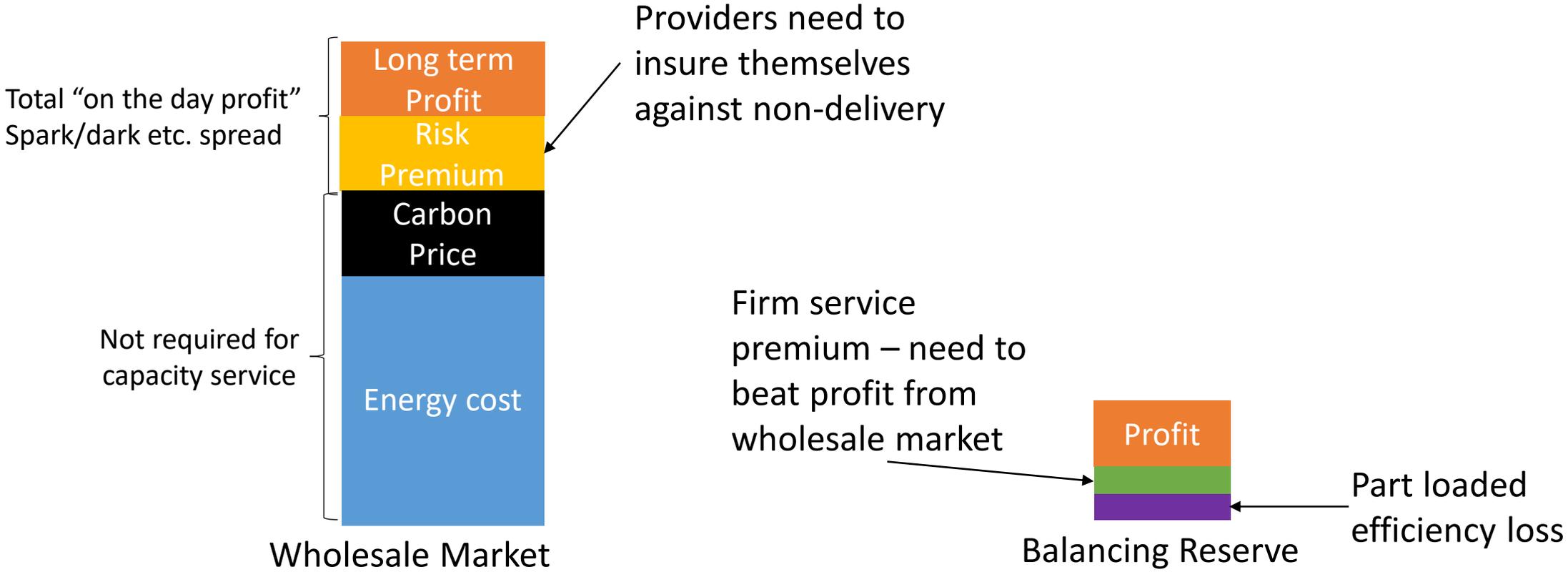
Eleanor, Ewa & Mike



What is Reserve?



Balancing Reserve Approach



Our expectation is that Balancing Reserve Capacity is priced lower than the Day ahead wholesale cost in a similar way to STOR.

Summary of Reviewed Topics and Changes

Sli.do: #BR2

Design Element	Initial Proposal	Revised Proposal for Day 1
Minimum Contract Size	50 MW	No change
Provider eligibility	BM Units and Large Power Station	BM Units with control telephony during all contracted windows
Provider eligibility	All participating units must have MFR capability and a signed MSA	No change
Time to full delivery	As specified by Providers with minimum ramp of at least 15MW/min	Minimum ramp rate to be at least 10MW/min, Maximum ramp rate as covered in Grid Code
Ramp rates	Minimum ramp-up and ramp-down rate to be at least 15 MW/min, Maximum ramp rate as covered in Grid Code.	
Service Windows	1 hour	30 minutes (Settlement Periods)
Auction Timings	Auction results by 09:00am	No change
Service Stacking (with DC)	No stacking between BR and response products including DC.	No change
Multiple Bids per unit per service window	Allowed	Not allowed

Provider Eligibility – Large Power Station



Retain Control Telephony capability to support operational resilience



Retain ability to instruct units via the BM and have operational visibility



Equalise BR eligibility requirements across GB

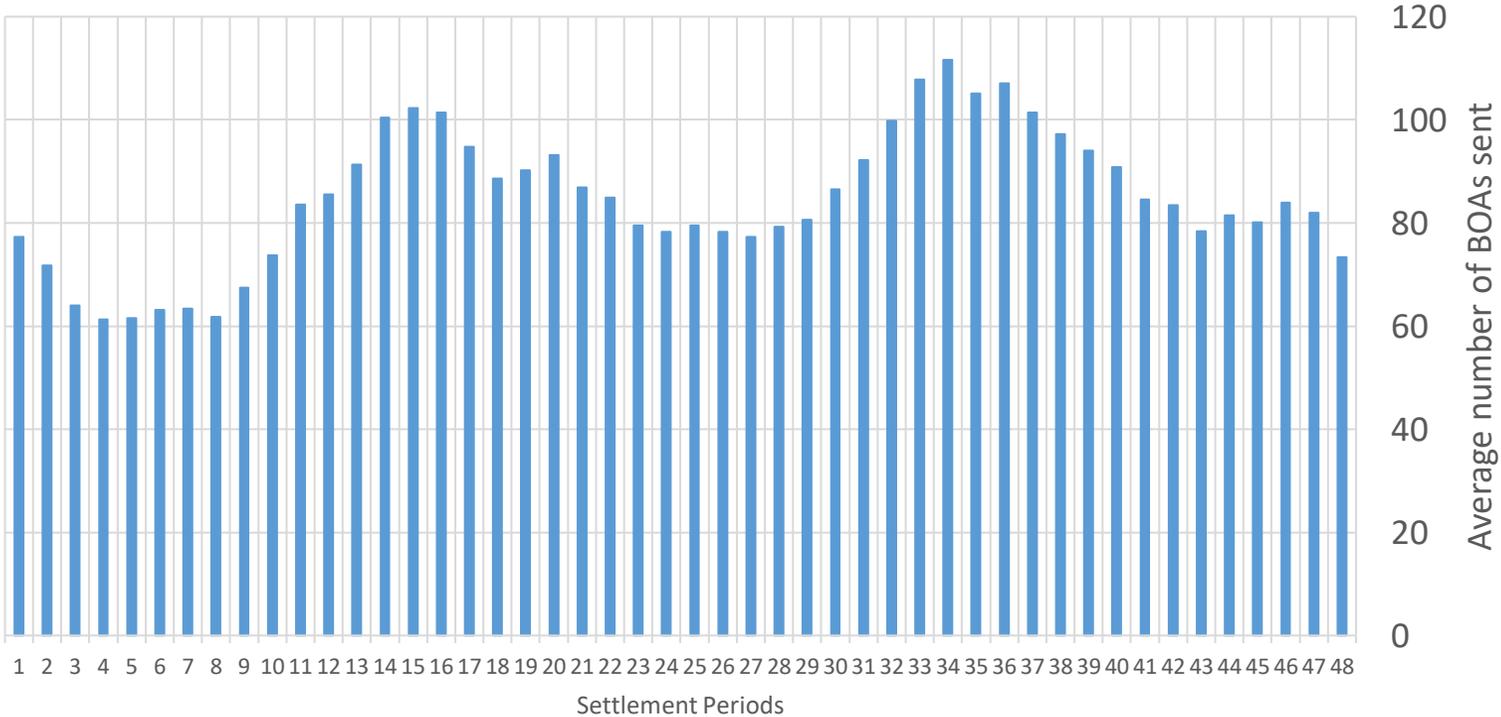


Increase transparency about the provider capability we need

Eligibility Criteria: All BR units must be BMUs, have Control Telephony and be able to be instructed via phone instructions during all contracted windows.

Provider Eligibility – 50MW Minimum Bid Size

Average number of BOA sent per SP



- Up to three engineers could be sending BOAs at any one time. BOAs can be sent for a number of different reasons including energy balancing, constraint management, voltage, response and reserve.
- Each EDL/EDT BOA takes ~20 seconds to create and send.
- A minimum bid size of 50MW will make it possible for engineers to quickly dispatch all of the balancing reserve holding in one direction alongside managing other system characteristics.

Eligibility Criteria: All BR units must be capable of delivering at least 50MW of headroom or footroom.

Provider Eligibility – MFR Capability

Today, control room engineers use units held for regulating (balancing) reserve for Mandatory Frequency Response (MFR). With contracted Balancing Reserve, as the headroom/footroom is already available, using these units for MFR has no repositioning cost. Also as the market has evolved to be more dynamic reflecting increased interconnection and renewable generation, specifying MFR allows us to increase response holding in real time to cater for added periods of uncertainty.

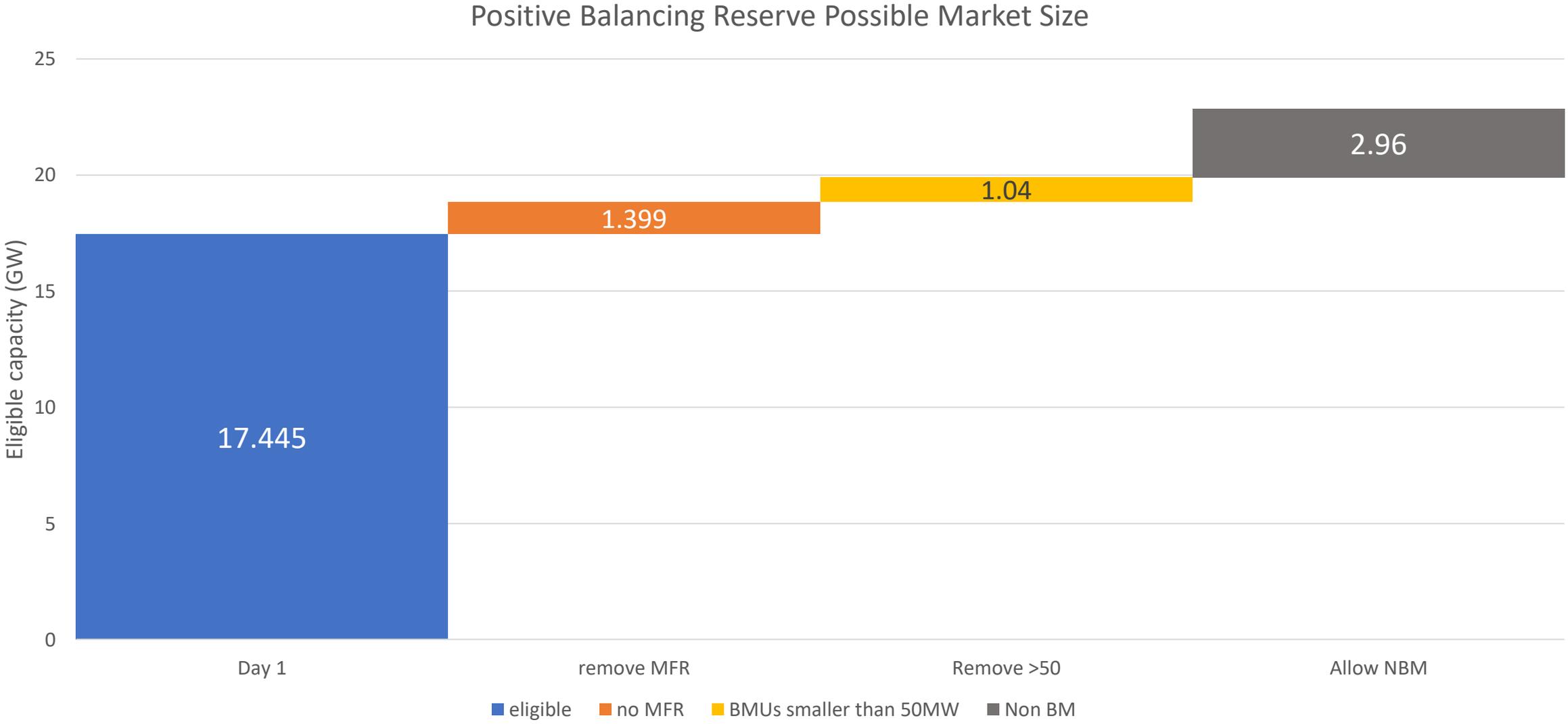
Where we don't contract our full response requirements ahead of time, we can plan to hold MFR (rather than securing through other pre-fault response products) and this is a known quantity of 'Reserve for Response' that we can secure through the BR market at a lower cost than through the BM.

This means that BR units need to have MFR capability.

Pre-Fault Response	Post Fault Response	Real Time Response
Supports pre fault frequency management within operational limits. Typically 550MW of PSH from MFR and FFR tenders, and will become DM/DR.	Contains frequency within SQSS limits following a large generation/demand loss and supports frequency recovery. Today this is met primarily through Dynamic Containment. Size of holding varies depending on system inertia and largest loss.	Additional response for challenging conditions

Eligibility Criteria: All BR units must have MFR capability, a signed MSA with the ESO and submit MFR prices.

Provider Eligibility – Market Impact



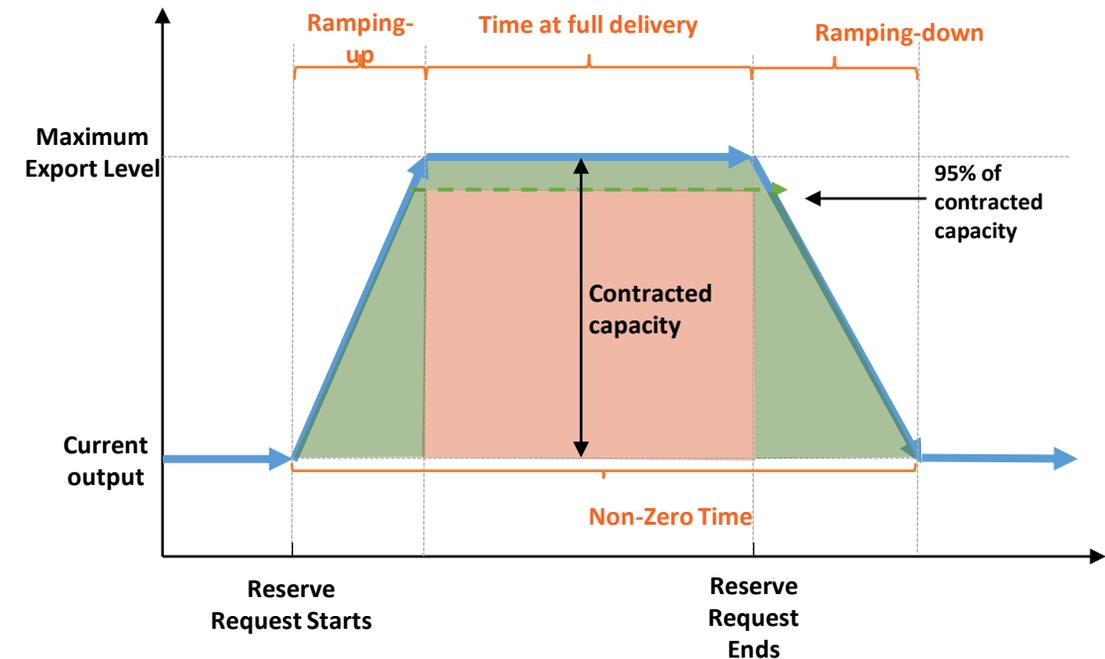
Performance Monitoring

Performance Monitoring of Availability

- Monitoring for sufficient headroom/footroom is held by units with the reserve contracts and being able to deliver the contracted MW if instructed to.
- The unit should be able to provide the contracted headroom or footroom and failure to deliver the contracted availability will trigger an **Event of Default (EOD)**. When a reserve unit triggers an EOD, it will forfeit Availability Payment for all the relevant Committed Windows.

Performance Monitoring of Utilisation

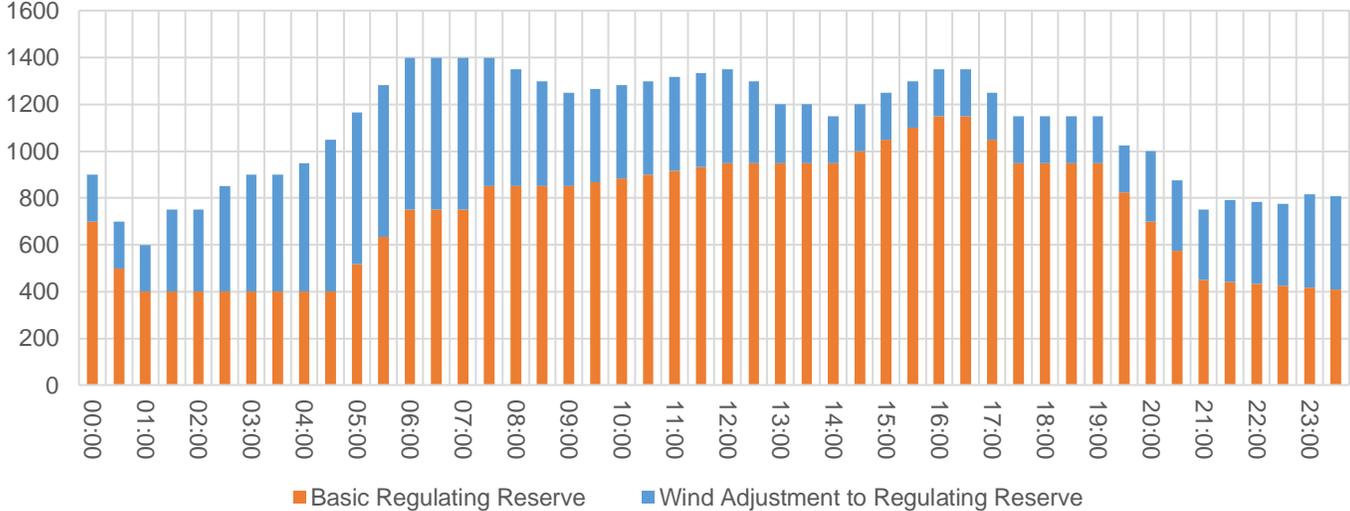
- When instructed to provide the service, **at least of 95%** of the offered MW must be delivered by the unit through the instructed period.
- Units need to ramp within acceptable ramping envelop.
- Failure to deliver or ramp too late/ too early will trigger an **EOD** and it will forfeit Availability Payment for all the relevant Committed Windows.
- No penalties for over-delivery but the payments should be capped at 100% of volume of dispatch instruction.



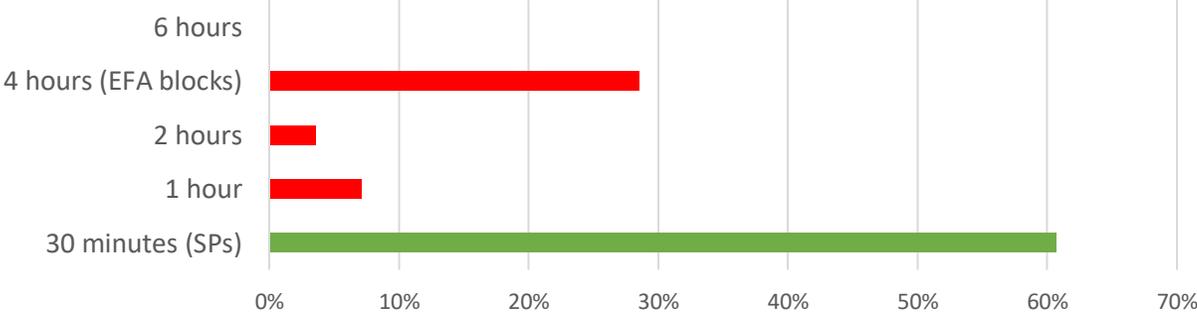
Service Windows

- In our first BR webinar we presented a proposal for 1 hour service windows.
- We received lots of useful feedback from attendees and there was overwhelming support for 30-minute service windows.
- We took this feedback away and performed an internal feasibility assessment.
- We are now proposing to have 30-minute service windows for the BR service.

Example of reserverequirements for GMT with variable wind forecast



Please indicate your preference for service window length.



Overview of our Proposed Service Design

Sli.do: #BR2

Design Element		Proposal
Direction		Positive and Negative
Minimum Contract Size		50 MW
Providers	★	BM Units with telephone control during contracted windows and MFR capability
Time to full delivery	★	As specified by Providers with minimum ramp of at least 10 MW/min
Energy Requirement		The unit must be able to deliver the full contracted capacity per Service Window
Operational Metering		As per GC
Dispatch mechanism		BOA for BM units
Notice to start ramping		As per GC - 2 minutes
Ramp rates	★	Minimum ramp-up and ramp-down rate to be at least 10 MW/min Maximum ramp rate as covered in Grid Code
Performance Monitoring		“Event of Default” on Availability and Utilisation of Providers in Service Windows Imbalance will be settled by Elexon calculation
Baselining		As per GC – Physical Notifications

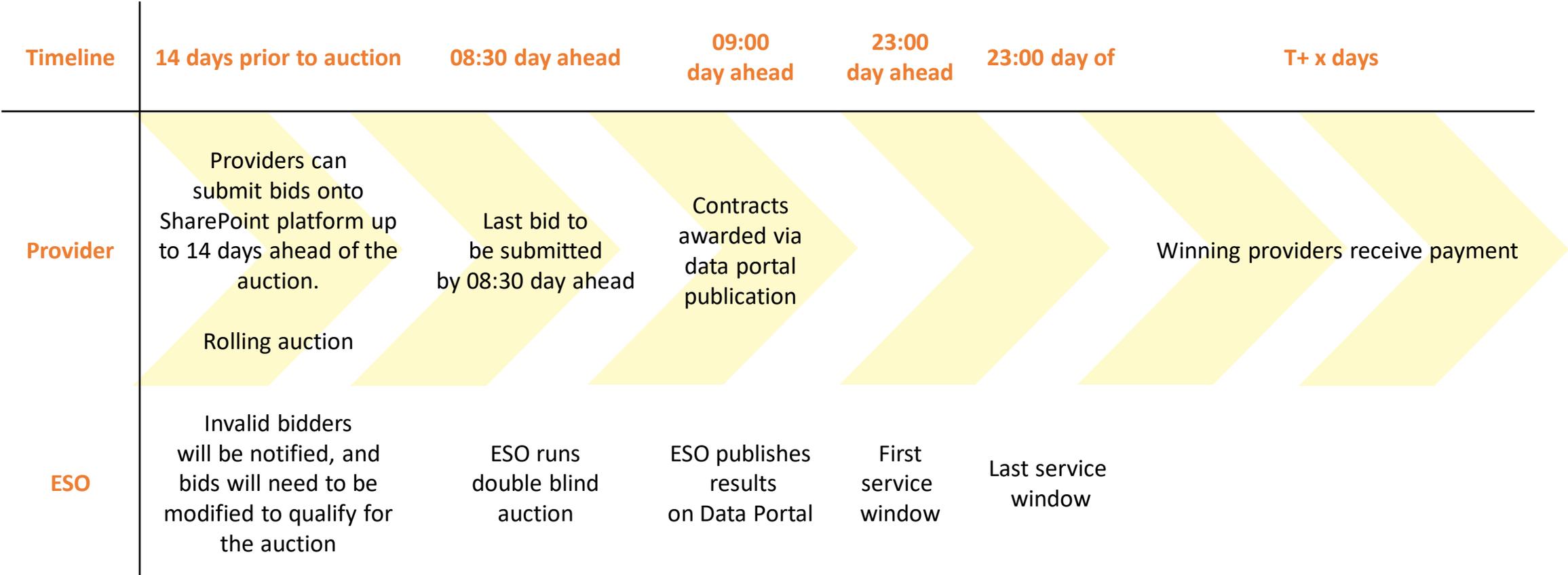
Design Element		Proposal
Service Window	★	30 minutes block or Settlement Periods
Frequency of Procurement		Daily
Auction Platform		To be confirmed
Auction Timing		Results by D-1 09:00 am
Stacking & Splitting		Same MW cannot be sold twice
Linking of bids		Yes , by Service Windows
Payment Structure		Availability + Utilisation
Payment Mechanism		Availability: Pay-as-clear Utilisation: Pay through BM

Overview of Auction

Shubhangi



High Level Auction Process



SMP Onboarding

Mili



Onboarding and Prequalification

- Onboarding through Single Markets Platform
- Access link - <https://www.nationalgrideso.com/industry-information/balancing-services/single-markets-platform>
 - Create username/ account and Company with accurate *Companies house number*
 - If the unit exists in database, your unit will be visible on the screen under unit management
 - If it is a new unit, then please register the unit and asset under it as SMP process
- 'Prequalify for services' on the unit to go to the pre-qualification service screen
 - Submit only with 'Allocated MW' >= 50MW
- Targeted workshops for helping onboarding of new market providers
- Calendar will be shared nearer the launch of Onboarding

The image displays three sequential screenshots of the National Grid ESO Single Markets Platform registration process, each enclosed in an orange border:

- Left Screenshot:** The 'nationalgridESO Single Markets Platform' login page. It features input fields for 'Username' and 'Password', a 'Remember me' checkbox, a 'Forgot password?' link, and two buttons: 'Sign in' and 'Register new account'. A 'Need help?' link is located at the bottom.
- Middle Screenshot:** The 'Register new account' page, titled 'Your details'. It includes input fields for 'First name', 'Last name', 'Email', and 'Confirm email', along with a 'Mobile number' field and a 'Select country code' dropdown menu. A 'Previous' button and a progress indicator are at the bottom.
- Right Screenshot:** The 'Company details' page. It contains input fields for 'Company name' and 'Company Registration Number', and a search box labeled 'Search For Company'.

EBR Article 18 Consultation

Vicci



Article 18 Consultation

Consultation documents can all be found on our website – [link here](#)

Consulting on:

- Service Terms
- Procurement Rules

Closing date for responses - Wednesday 14th December

Submission to Ofgem for review and approval - Monday 16th January

Please give us sight of your feedback as early as possible

- We welcome 1-1 discussions, so please reach out so we can facilitate these vicci.page@nationalgrideso.com

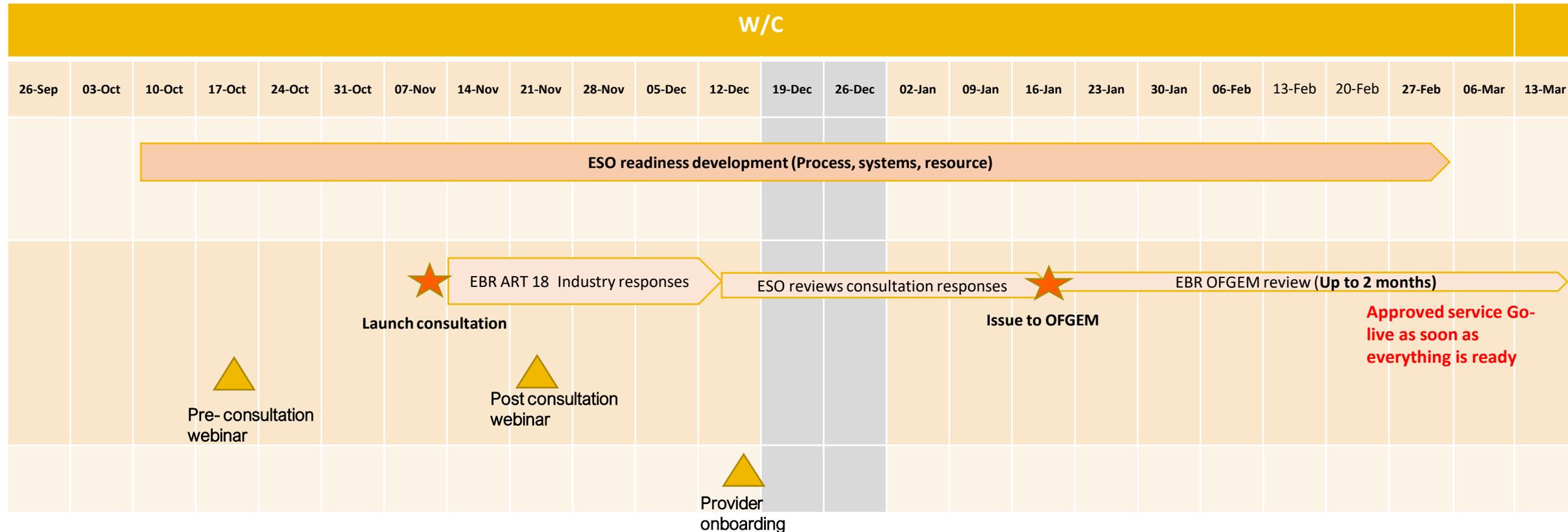
Overview of delivery plan

Yuting



Current Plan for Balancing Reserve Go-Live

Sli.do: #BR2



Key dependencies for go-live:

- **Provider readiness** – Onboarding and Auction
- **ESO readiness** - System development (Onboarding and Auction platform), process and resource to run the E2E process
- **Regulatory readiness** – OFGEM approval of EBR article 18 consultation

Question and Answers

Vicci



slido



Audience Q&A Session

ⓘ Start presenting to display the audience questions on this slide.

Next Steps and Close

Yuting



Next Steps

- **Webinar slides, recording and Q&A will be published on the ESO webpage:** [Link to Balancing Reserve webpage](#)
- **EBR Article 18 Consultation close for industry responses-** Wed 14th Dec
- **Provider Onboarding** - SMP is planned to be ready from Mid Dec to start onboarding, more information will be shared to support Providers with this, along with optional Teams drop-in sessions
- **Mock Auction** – The plan will be communicated as soon as it's confirmed
- **If you have any questions or would like to arrange a 1-2-1, contact us:** box.futureofbalancingservices@nationalgrideso.com

Close