

Future of balancing services – update

June 2023

Introduction

Purpose of this document

This document provides an overview and update on progress of the transformational projects that are currently live in the balancing services reform space. Specifically: Reserve Reform, Balancing Reserve, Response, Enduring Auction Capability (EAC), Demand Flexibility Service (DFS) and Single Markets Platform (SMP).

Please share your feedback with the team by emailing us at box.futureofbalancingservices@nationalgrideso.com

Project delivery for 2023/24

As we enter the Business Plan 2 (BP2) period, the Market Change Delivery team will continue to develop existing services and platforms that were introduced in BP1, deliver new services that are needed to operate a net zero power system and drive efficiency across our markets through new procurement tools. Below is a summary of these different projects and how they will be progressing over BP2:

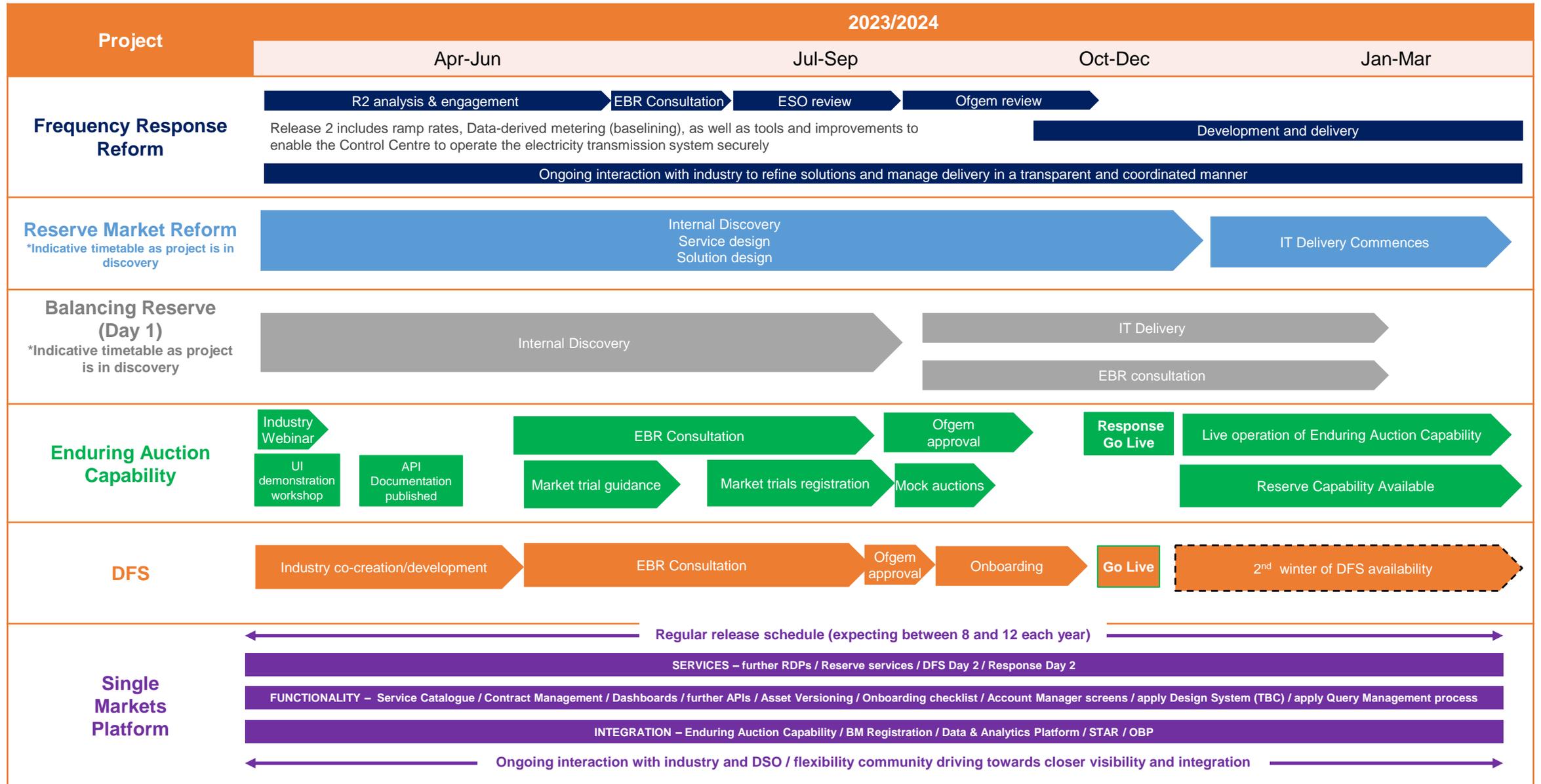
- **Projects that are continuing to be developed:**
 - SMP continues to deliver new functionality at a near monthly cadence through an agile methodology where features with the most value are prioritised to deliver maximum value.
 - Response is now following an annual cycle of reform with changes to the service being led by both internal and external stakeholder feedback.
- **Projects that are going through re-planning:**
 - Following the communication to the market regarding the delay to Reserve Reform, the project has been in an internal discovery phase to assess what IT systems should be used to launch these new services (Quick/Slow Reserve).
 - Balancing Reserve is in a similar position, following the rejection of this project by Ofgem earlier in the year, the project is in an internal discovery phase to assess how we launch an enduring solution.
- **New projects:**
 - EAC is scheduled to go live this autumn with the Article 18 EBR consultation going live on the 14 June – this will provide industry with the ability to co-optimise assets across the response suite for the first time.
 - DFS is returning for winter 23/24 with the Article 18 EBR consultation also going live on the 14 June – the service builds on last year’s design with MPANs processed daily, additional dispatch ability and use of asset metering.

Projects overview

Project	Delivery status
Response Reform Release 2	On track Engagement is in progress and consultation is on track for publication in June with Release 2 go live in Spring 2024. An updated approach to continuous engagement will be implemented following the current round of consultation-focused engagement.
Reserve Reform	Delayed (re-baselined) The delivery for Slow and Quick Reserve has been delayed from its re-baselined delivery date (Q4 2023-24). Currently in internal discovery phase to assess what IT systems should be used to launch these new services.
Balancing Reserve	Delayed Balancing Reserve is expected to be ready for spring 2024.
Enduring Auction Capability	On track (re-baselined) Enduring Auction Capability (EAC) has been re-baselined from its original Business Plan 1 milestone delivery date (Q4 2022-23) due to internal ESO delays driven by the complexity of defining the deliverable and allowing extensions to the submission time for bidders in the tender process. Project plan on track to revised plan which will see EAC launch in autumn 2023.
Single Markets Platform	On track Successful 2022 with multiple releases through year, reprioritisation in support of tactical needs whilst continuing to focus on specific key functionality (i.e. APIs). Significant backlog of work for Business Plan 2 (23/24 and 24/25) and a target of monthly releases.
Demand Flexibility Service	On track Following a successful launch of DFS in winter 22/23 we have been engaging with industry over the last few months to shape appropriate developments for the future of the service. ESO are on track to have an improved version of DFS ready to launch for winter 23/24 and beyond.

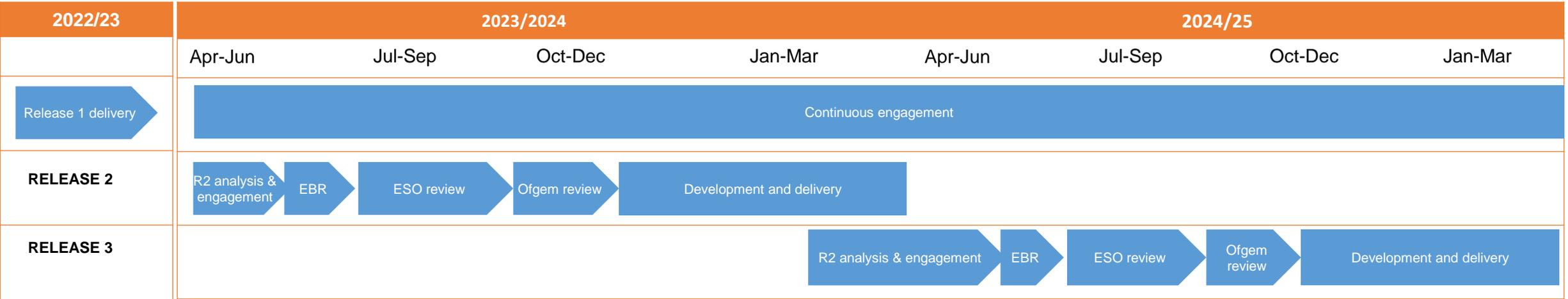
**Any changes to timelines will be communicated via the
Future of Balancing Services newsletter**

Reform projects – summary



In accordance with Article 18 of the Energy Balancing Regulation (EBR), the ESO is required to formally consult on terms and conditions related to balancing services. Industry consultation runs for one calendar month.

Frequency response reform



Annual cycle

- Response reform is following the previously communicated annual service development cycle for the first time. Having an annual cycle gives all stakeholders a repeatable, reliable plan which takes into account the fixed timelines for the formal EBR consultation, and provides sufficient timelines for engagement, onboarding and systems development.
- We will be keeping the approach and timings of the annual cycle under review and expanding it to other balancing services reform as appropriate in future.

Response Release 2

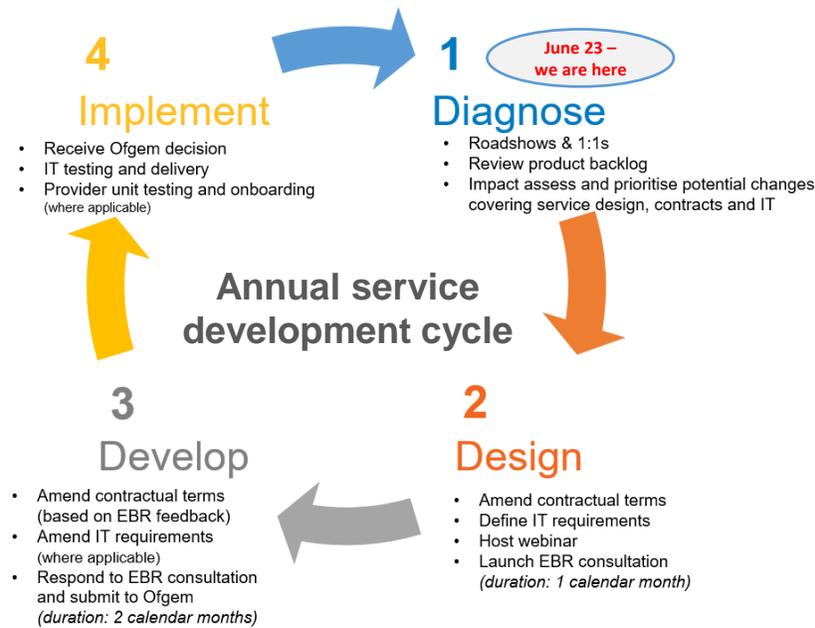
- The Release 2 backlog is under development in coordination with market participants, including through roadshows held in Edinburgh and London in May 2023.
- Release 2 (2023-24) Electricity Balancing Regulation (EBR) consultation will be launched in June 2023.
- Key topics of focus for 2023-24 include removing barriers to Data-derived metering (baselining), clarity on topics such as State of Energy, updates to ramp rates, as well as a range of changes to tools and improvements to enable the Control Centre to operate the electricity transmission system securely. A full list of topics can be found in the slides from our May 23 industry webinar [here](#)

Engagement

- We will be implementing a new approach to engagement including regular drop in sessions to share progress and provide greater transparency of progress and delivery throughout the product lifecycle.

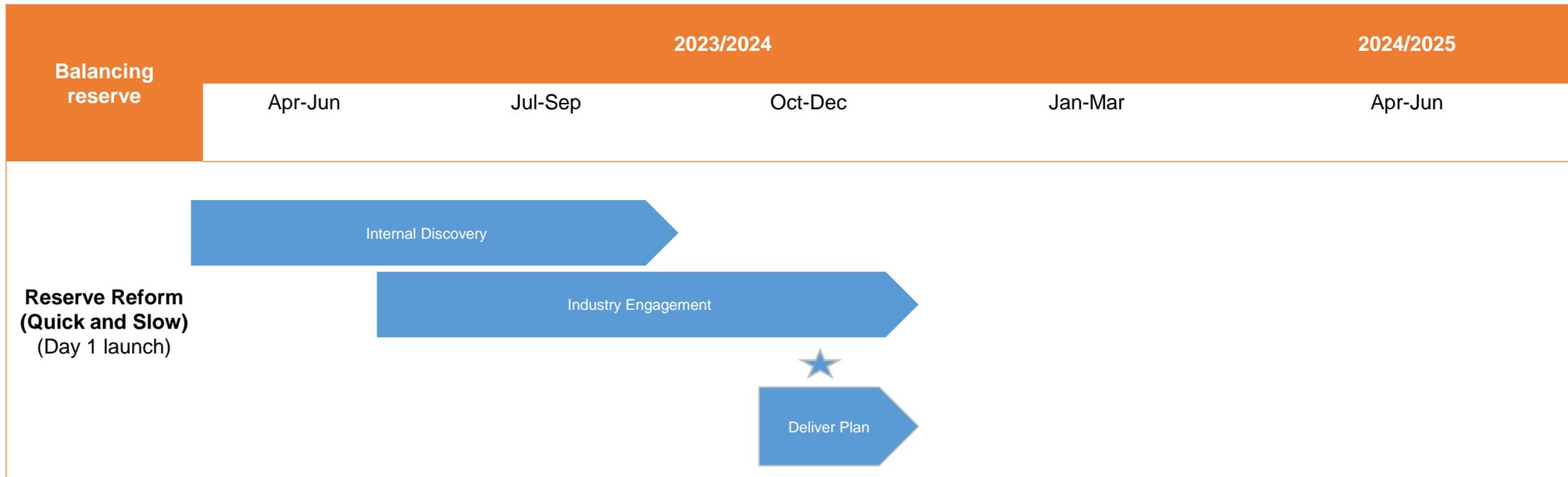
Looking ahead

- Further topics that we will be investigating this year include: ramp rate policy, availability declarations, service provider data submission requirements, intraday procurement and removing barriers to entry for wider technologies.
- We have steps in place to begin offsetting FFR and increase the Dynamic Regulation and Dynamic Moderation volumes, however this will be a steady process, and we expect to continue to procure dynamic FFR into FY2023-24. Specific IT upgrades need to be in place before volume caps are lifted.



Reserve reform - indicative timeline

★ Key milestone



Progress update

- The service design for Quick and Slow Reserve is being reviewed for industry consultation
- The delivery plan will be based on the decision on implementation in legacy vs. new system
- ESO resource availability is a challenge and could still lead to further delays.

Looking ahead

- Key dependency: Balancing Transformation (ESO IT project) will deliver essential components for BM Quick / Slow reserve
- When the new services launch, as part of a controlled implementation, we plan to run them in parallel with STOR and Fast Reserve in the interim, whilst we review their performance.

Reserve Reform – Complexities of delivering process and technology changes

Delivering Balancing Services reforms requires a people, process and technology solution across multiple steps in the customer journey, for example:

- **Unit Registration and Service Prequalification (via Single Markets Platform):** Onboarding process for Reserve providers
- **Demand Forecasting:** Ensuring ancillary services units are in the demand forecasts utilised within National Control
- **Day Ahead Procurement:** Ensuring we procure enough of each service to fulfil forecast need
- **Energy Balancing:** Ability to view availability of ancillary units and monitor their performance with operational metering data
- **Settlements:** Calculating and making payments to ancillary (balancing) service providers

Numerous system changes, **complex set** of dependencies, roadmaps of **diverse systems** and the **significant quantum** of **change** across most of ESO IT landscape over the RIIO BP2 period. (See Annex 1 for a summary of our technology landscape impacted by Balancing Services reforms)

The Reserve Reform project has been working to implement Quick and Slow Reserve before the end of 2023. This has identified a series of **challenges** and **risks** associated with delivering the changes on our **legacy systems**, which resulted in a **pause to delivery** and a **re-visit** of the **timing** of when these services will be launched, considering how we **align** our delivery to our strategic systems roadmaps, such as the Open Balancing Platform.

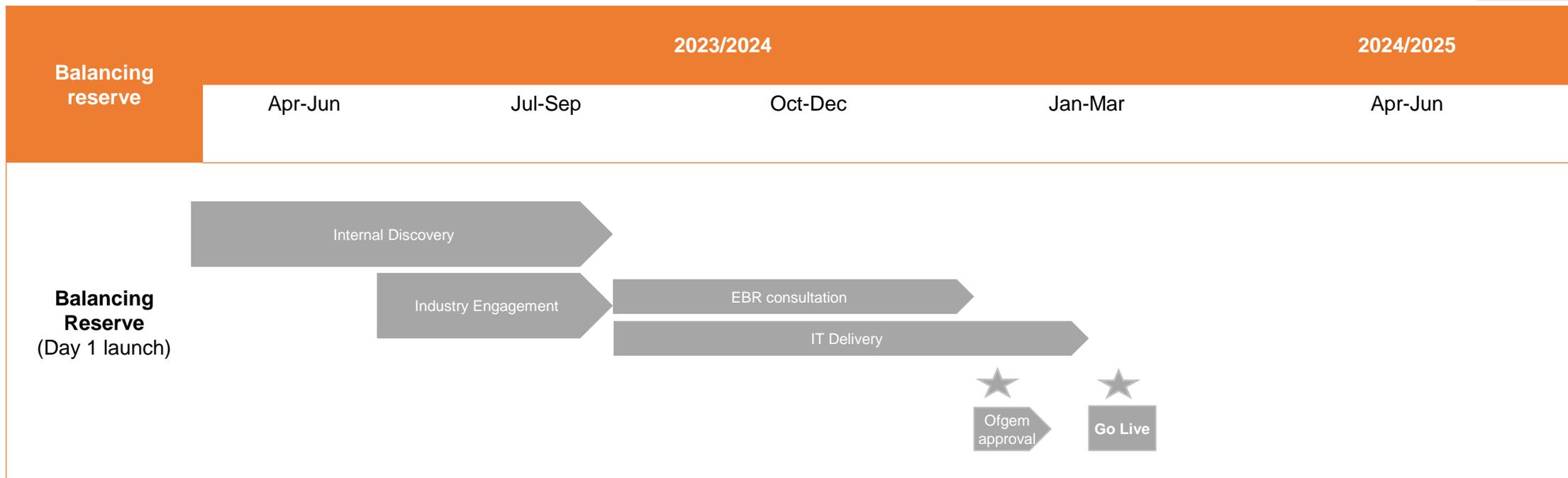
These challenges include:

- Accommodating Non-Zero Baselines and Service Window Crossovers in Energy Balancing
- Incorporating Settlement Capability within the new Settlements platform vs managing manually or in the legacy system.
- Changes to our Demand Forecasting data flows whilst the Platform for Energy Forecasting (PEF) solution is preparing to move to a strategic cloud hosting solution

The next steps are to re-visit the roadmap and revise the implementation plan, more information on this will be shared in the next quarterly update.

Balancing Reserve – indicative timeline

★ Key milestone



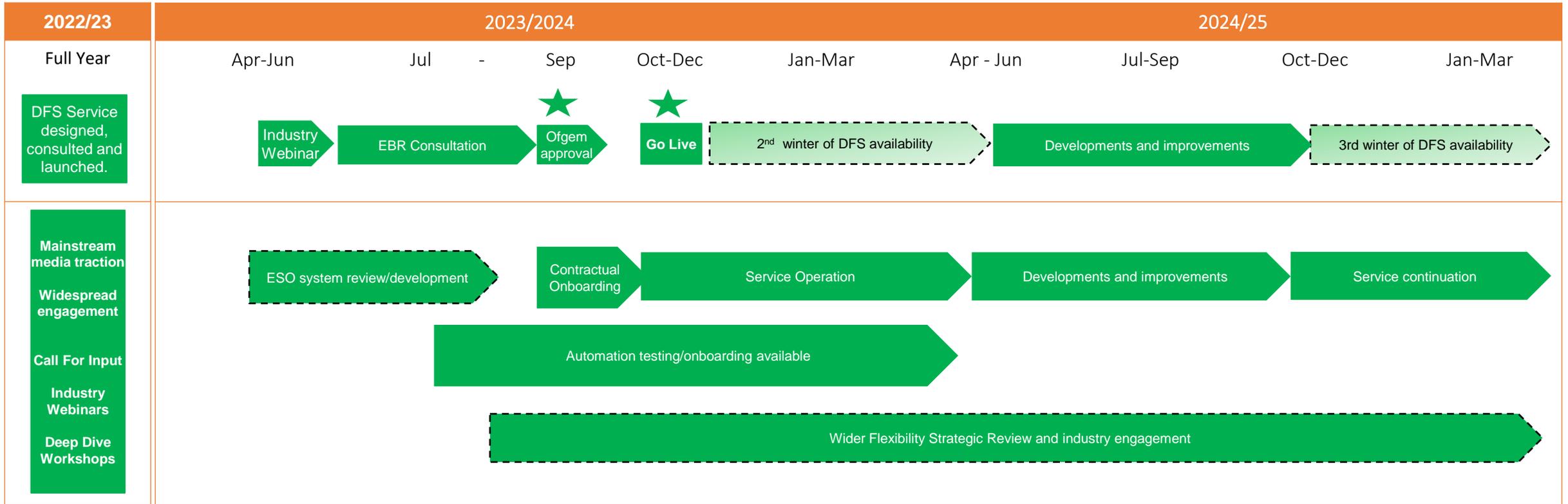
Progress update

- Service design revalidation and IT impact assessment begun
- Successful 'Call for Input' across participants; valuable feedback received and being analysed
- Industry webinar for update at the end of June '23 to highlight work done since Ofgem decision and next steps
- Further analysis is being worked on, including co-optimisation and MFR/ Non-MFR rules and auction timings

Looking ahead

- Finalising the implementation and EBR consultation plan to confirm the date of delivery
- Continued engagement with industry to address any concerns or questions

Demand Flexibility Service



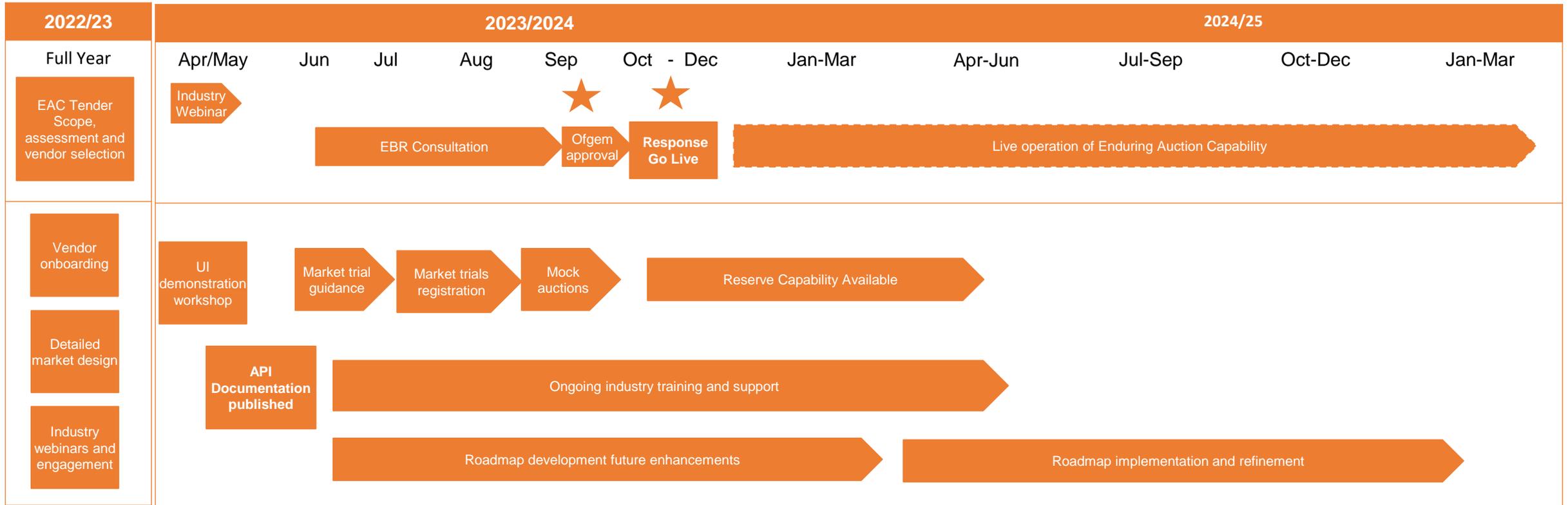
Progress update

- Call for input to help shape and collaborate on the future developments of DFS. 48 organisations responded.
- 3 deep dive workshops over 180 external participants. Over 500 individual feedback comments/questions/suggestions.
- Kick off of consumer evaluation innovation project.
- Industry webinar held to share proposals ahead of formal EBR consultation launched 14 June.

Looking ahead

- Industry review ahead of ESO consideration and final submission to Ofgem.
- Further details around automation specifics and onboarding/industry engagement to drive awareness.
- Go live for winter 23/24

Enduring Auction Capability



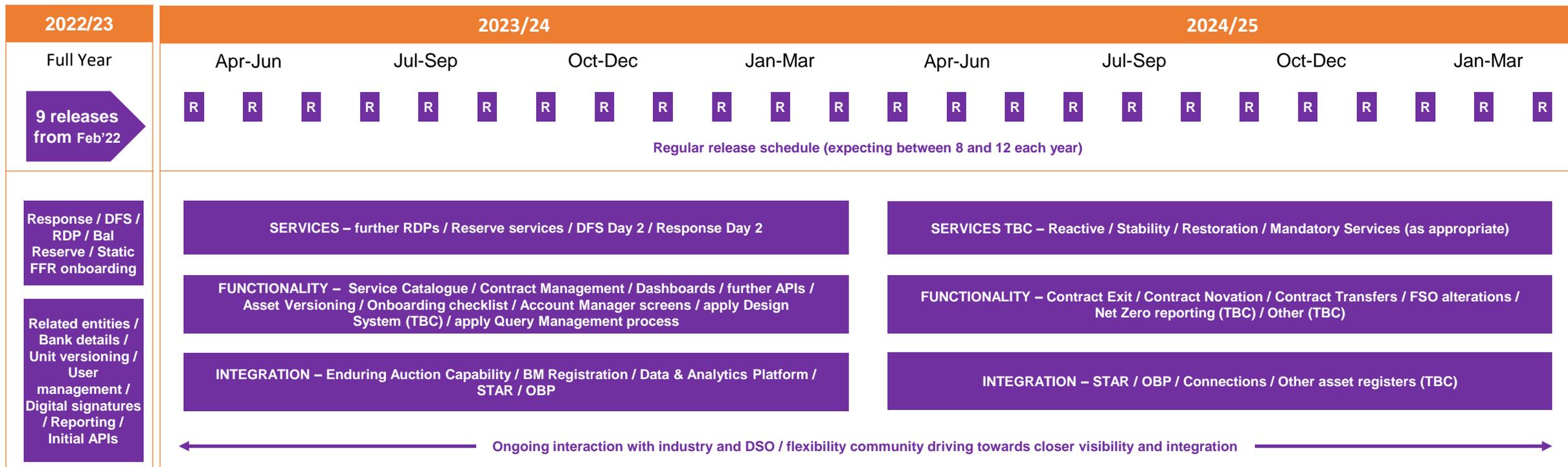
Progress update

- Engagement with the market around key market design decisions through provider meetings, questionnaires and industry webinars.
- Support material published on key developments such as co-optimisation and stacking.
- Industry webinar held to update industry on progress and review progress.
- Formal EBR consultation launched 14 June.

Looking ahead

- Sharing User Interface development with industry.
- Sharing market trial guidance and registration ahead of our first mock auctions towards the end of summer 2023.
- We continue to keep a close link on the moving parts around reserve reform and remain flexible to support the go live of these services.
- Go live for autumn 2023

Single Markets Platform



Progress update

- 9 releases during BP1 up to March 2023 including onboarding processes for Response, RDP and tactical services such as Demand Flexibility Service (DFS).
- Re-prioritisation of backlog during BP1 still facilitated an alternate strategy to deliver APIs supported by earlier technical documentation and sandbox (see separate feedback panel)
- BP2 backlog developed with first 2 releases successfully deployed in April and May 2023

Looking ahead

- Continuing delivery of backlog through monthly releases (ideally) through BP2 with significant focus on integration with parallel systems being developed within NGESO
- Regular engagement with industry will continue through monthly Show and Listen working group events.

Focus on APIs

What does API stand for?
Application Programming Interface

What do API 's do?
Allow systems to talk to each other

What has SMP done here?
The first SMP APIs (“Create Asset” and “Create Unit”) went live in early 2023. API enhancements and all new categories will go live during 2023/24 and beyond

Why is this important?
Asset and Unit information can now be loaded automatically as opposed to manually. This reduces a key barrier to participation in balancing services markets

Acronyms

DFS - Demand Flexibility Service / **ASDP** - Ancillary Services Dispatch Platform / **API** – Application Programming Interface / **RDP** – Regional Development Programme / **FFR** – Firm Frequency Response / **CIAM** – Customer Identity and Access Management / **BM** – Balancing Mechanism / **FSO** – Future System Operator / **STAR** – Settlements and Revenue (System) / **OBP** – Open Balancing Programme

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