22/09/2025–21/10/2025

# Balancing Programme: OBP Delivery Increment (DI)19 Closure Report

NESO
National Energy System Operator

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## Executive Summary:

DI19 has been a very successful DI for the program and likely the most successful this year. With the completion of this release, we have not only delivered significant functional value to the control room across dispatch, but we have also proven this functionality in our OBP Strategic test environment, giving further confidence in our OBP Strategic launch in November. This is a significant milestone for strategic OBP as it is the first time we have been able to validate a whole release E2E.

With the release of 2.1.0, users will be able to dispatch Wind BOAs and multi-dispatch from a price stack; it also included multiple AS instructions, clock change compliance for the winter clock change, margin-based exclusions with system tagging and situational awareness for pump storage.

Our development and testing work has not progressed at the level expected and we now have a large amount of functionality in system testing and E2E testing ahead of our next release post OBP Strategic launches. The breakdown is detailed below along with our mitigation steps to missing our count due to shifting priorities.

# DI19 Completion Report – Success Against Commitments

## Committed Goals

 Exceeded   Met   Partially Met   Not Met     Deliver   Develop   Elaborate

| Type | Objective | Solution Train | Status | Description | Delivered Value |
|---|---|---|---|---|---|
|  | Wind Manual BOAs. | All Instructions |  | The ability to send manual BOA instructions to wind units in production. | Expected to support sending of instructions to units that do not follow their schedule (Physical Notifications). |
|  | Price Stack for BMUs with bulk dispatch. | All Instructions |  | The ability to dispatch instructions in bulk, directly from a price stack in production. | Provides an alternative to optimisation by using a price stack to dispatch. Includes all types of BMUs whereas optimisers still need to include wind and pumped storage units. |
|  | AS Instructions – Sync Comp, MFR. | All Instructions |  | The ability to send Sync Comp, MFR instructions in production. | Control room can send instructions from a unified interface so supporting economic dispatch. |

| Type | Objective | Solution Train | Status | Description | Delivered Value |
|---|---|---|---|---|---|
| 🚚 | Margin Based Exclusions + System Tagging with automatic restriction removal. | Constraints | ✅ | The ability to system tag a constraint group as well as exclude constraint margins when a constraint limit is breached automatically. | Makes more units available for energy dispatch behind a constraint. |
| Develop | Expected changes to CLC design and submission history to close this DI. Testing with Software Provider to commence this DI. Testing with BM to commence this DI. | EDL/EDT | ❌ | Develop hardening changes related to committed level calculator and submission history to enable full testing with BM for the EDL/EDT process. To conduct integrated testing with Software Provider. | OBP, BM and MPs will be able to start commencing a long period of end-to-end testing and proof pointing to prove the approach to cutover for EDL/EDT. |
| Develop | OBP can handle step changes. | All Instructions | 🟡 | Develop the functionality needed to handle units with step changes, to | Progression of this work to enable us to get to a launch in production |

| Type | Objective | Solution Train | Status | Description | Delivered Value |
|---|---|---|---|---|---|
| | Pump storage states and Instructions. | | | avoid invalid instructions being dispatched.<br><br>Develop the remaining functionality to enable a launch of pump storage states and commence E2E testing for pump storage instructions. | before the end of 2025 across step changes and pump storage BOAs. |
| Develop | Dynamic Response and Slow Reserve Ready to support Market Participant Testing. | Ancillary Services | ❌ | OBP will showcase service flexibility, building on the NBM Quick Reserve foundations to enable new services to be added and validated with participants. | Work larger than planned and MPT (market participant testing) readiness has moved to DI20. Overall deliveries in Feb/March currently unaffected. |
| Develop | Highly Resilient OBP to be ready for final testing. | OBP Strategic | ✅ | OBP will be able to prove key disaster and catastrophe recovery scenarios ahead of the OBP strategic launch. | Final OBP Lite release 2.1.0 successfully proven for strategic as it enters final test windows. |

| Type | Objective | Solution Train | Status | Description | Delivered Value |
|---|---|---|---|---|---|
| 📋 | Unit registration and mastership shaping and design.  Contingency system (CLOGS) replacement refinement. | EDL/EDT | ❌ | Full elaboration of the unit registration and mastership process for onboarding new units into OBP when mastering EDL/EDT. | Blocked due to resource unavailability and prioritisation of Dynamic Response and Slow Reserve shaping and design. |
| 📋 | Shaping and design of MVAR/Voltage, Stability Pathfinders, AIR and Pump Storage Part 3. | All Instructions | ❌ | Full elaboration of the remaining instruction types to allow this work to move into delivery in DI20, subject to capacity and prioritisation. | Not completed and therefore not committed for DI20 due to resource availability. |
| 📋 | Enhancements to reporting and situation awareness for Dynamic Response and Slow Reserve. | Ancillary Services | ✅ | Elaboration of the remaining work needed to deliver the full solution for Dynamic Response and Slow Reserve. | On plan for delivery across DI20 and DI21. |

## DI Delivery Summary

At the start of DI planning, 74 features/enablers were committed to be delivered to the definition of complete.

Our feature count is around 45% of plan (33 features) as the readiness for the 2.1.0 release has taken developers away from defect fixes and testers away from closing out system testing. This has been driven by a combination of reprioritising clock change strategic fixes in favour of role-based access control (5 features), deferral of 11 non-functional features to prioritise strategic testing of 2.1.0, 9 features in system testing, 13 features closing out development due to changes in design, increasing complexity of the work to complete by 19% and 3 feature cancellations.

# DI20 Plan – Our Commitments

## DI Objectives

Below is an extract of the DI Objectives from the DI Programme Plan. For the Commitment (Committed/Stretch), any items with an asterisk (*) are required achieve the definition of done (to be in production and in use). Items without the asterisk are to be delivered to the definition of complete - completion of system test and may be foundational change for future releases.

- Confirmed features for Build/Test DI20 – 41
- Confirmed Elaboration Features for DI20 – 48

Deliver Develop Elaborate

| PI | Objective | Solution Train | Description | Expected Value |
|---|---|---|---|---|
|  | OBP Strategic Launch | OBP Strategic | OBP is running in the control room on strategic infrastructure. | Cutover across multiple days to move over bulk dispatch, metering and NBM. |
|  Develop | Dynamic Response | Ancillary Services | Ready to start MPT with participants for Dx. | Ability to test both inbound and outbound flows with participants. |
|  Develop | Slow Reserve | Ancillary Services | Ready to start MPT with participants for SR. | Ability to test both inbound and outbound flows with participants. |
|  Develop | NDO Enabling Runs | National Dispatch Optimisation | Tech readiness for NDO with Response. User Interface (UI) to be behind feature flag. | NDO can be compared with current Legacy Dispatch Advice (LDA) with response and a UI. |
|  Develop | Step Change (Parts 1 and 2) + EPC Enhancements | All Instructions | OBP can observe step changes and visibility of units with an MNZT > 125 minutes. | The ability to enable dispatch from all zones. |
|  Develop | Pump Storage BOAs | All Instructions | The ability to prove BOAs for Pump Storage units without state change. | First steps allowing control engineers to use pumped storage from same screens as other BMUs supporting economic dispatch. |

| PI | Objective | Solution Train | Description | Expected Value |
|---|---|---|---|---|
| | MVAR/Voltage and ITRIP | All Instructions | Fully refined user stories and designs for remaining ancillary instruction work. | Allows Transmission engineers to use OBP to control voltage and constraints. |
| | Pump Storage Part 3 – State Change Instructions | All Instructions | Fully refined user stories and designs for remaining pump storage work. | Further Pumped Storage functionality in OBP. |
| | Manual Instruction Extensions and AIR | All Instructions | Fully refined user stories and designs for AIR and Manual Instructions. | Allows control room to put BMUs on instruction extension. |
| | Dispatchable Price Stack | All Instructions | Fully refined user stories and designs for service aware, dispatchable price stack functionality. | Including non-BMUs in price stack. |

# Appendix

<u>Abbreviations:</u>

- **AIR:** Automatic Instruction Repeat
- **AS:** Ancillary Service
- **BM:** Balancing Mechanism
- **BMU:** Balancing Mechanism Unit
- **BOA:** Bid Offer Acceptance
- **CLC:** Committed Level Calculator
- **CLOGS:** Contingency Logging System
- **Dx:** Dynamic Response
- **EDL:** Electronic Dispatch & Logging
- **EDT:** Electronic Data Transfer
- **LDA:** Legacy Dispatch Advisor
- **MFR:** Mandary Frequency Response
- **MNZT:** Minimum Non-Zero Time
- **MP:** Market Participants
- **MPT:** Market Participant Testing
- **NDO:** National Dispatch Optimiser
- **OBP:** Open Balancing Platform

- **SR:** Slow Reserve

- **UI:** User Interface