



# BALANCING TRANSFORMATION

Programme Increment 4  
Closure Report

Start Date: 30/03/2022

End Date: 05/07/2022

# PI4 Closure Report – Executive Summary

- The objective goal for PI4 was to ***set up the Balancing Transformation programme for scaled development*** and an overall PI Objective of “***Creating a generation requirement and obtaining an optimised profile***”
- The rate of completion of Features (to the Definition of Done) at the start of the PI was hampered due to complications with environment set up and delivery – originally expected in Sprint 4.2, but delivered in 4.4 & 4.6. ***Once the environments were delivered, Feature completion rate tracked as predicted***
- **The environment delays were a one time impact**, which has led to a backlog of System Testing that will need to be caught up in future PIs. Similarly, a number of smaller requirements were de-prioritised to progress within the next PI.
- Environments and tooling to underpin a ***scaled development environment*** have now been created and will ***enable fast scaled development for future PIs***
- Despite the delayed start, the key PI Objective of ***Creating a generation requirement and obtaining an optimised profile***” ***was demonstrated with an end to end PI4 demo within an integration environment***



# Balancing Transformation – PI4 Summary

## We said we would deliver...

The ability to receive and validate market data for the BM services, harmonise the residual data and enable the control room users to visualise this on the Energy Profile Screen.

The ability to receive and visualise the target programme on the Energy Profile Screen, create a MW Requirement to meet the target programme and send this to the Optimiser which will then produce a set of optimised instructions.

The ability for the users to see the draft list of instructions that have been generated by the optimiser, and send them out for dispatch.

The capability for teams to develop and test code serviced by automated pipelines.

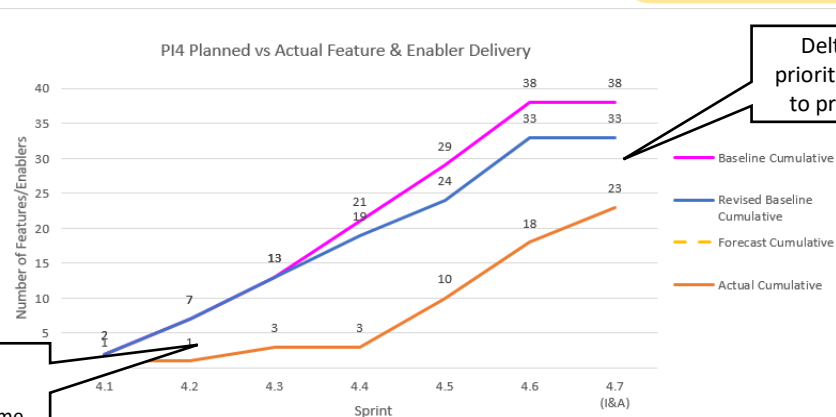
## What We Did...

Delivered each of the objectives to a point where we have an end to end demo.

Delivered environments and tooling to underpin our delivery with solid foundations – a one time activity enabling a fast start to the next PI.

A small number of requirements need to close out in the next PI that were de-prioritised in order to showcase a working solution and provided the value expected of this PI to the business.

Agreed the OBP-BM integration approach for R1.0 including a successful prototype.



Velocity Slow due to environment/resource onboarding delays – One time impact

Delta caused by prioritising value due to previous delays

## What we will do next...



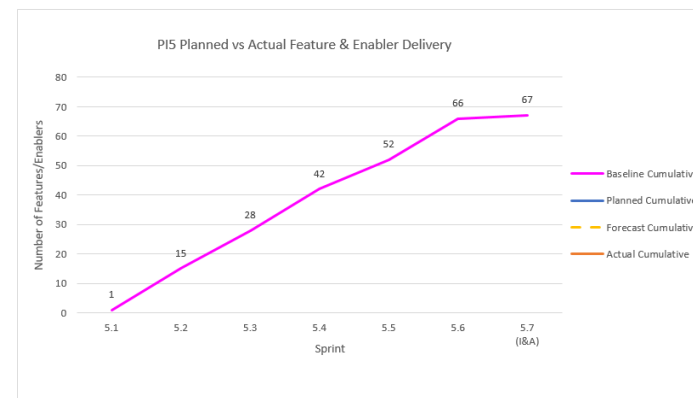
Finish PI4 work carried over and start System Testing

Prove our Core architecture for our service catalogue so we have a system that we can build on with little to zero development required.

Develop basic role profiles and notification functionality on which a control room user's access and alert notifications are based.

Prototyping of the inbound and outbound BM interface

Deliver the System Test environment and pipelines to enable automated end-to-end testing within the Balancing Programme.



DoD for user stories in PI4 was to complete user story testing in DEV A PR. In PI5 it has been extended to complete smoke testing in DEV A INT. All user stories built in PI4 will need to be taken through to DEV A INT.

# Features/Enablers Changes in PI4 Scope

The following features and enablers were removed from or brought into PI4 scope:

Title	In/Out of PI4 Scope	Squad	Comment
[Instruction Queue Enabler] Implement Future-Dispatch Functionality	Out	PAI/Optimiser	Scheduling is not required at this stage as we are implementing BOAs that are sent out immediately. This functionality will be delivered in a future PI.
Bulk Dispatch Optimiser Supports NTO/NTB Requirements	Out	PAI/Optimiser	Currently handled in pre-processing by Market Services within the EMX EMI profiles. This feature will be reassessed to confirm if required in a future PI.
Visualise and Review the Proposed Optimised Profile	Out	PAI/Optimiser	Realigned to a future milestone: FBCPROG-564 - Optimisation, visualisation, editing of draft queue and sending of instructions (V2). The optimiser output line required to prove the flow of milestone 425 (M2) will be delivered by FBCPROG-395 planned for PI5.
Integration Framework for MFE	Out	Common Display	Realigned to a future milestone: FBCPROG-430 Role Profiles & Notifications.
Global Toolbar Enabler (GL)	Out	Common Display	Realigned to a future milestone: FBCPROG-446 Authentication, Role Profiles & Notifications V2.
Derive Ramp rate data for Energy Balancing Services	Out	Market Services	Further elaboration of the feature within PI4 confirmed this was not required for Milestone 424 (M1). It will be required in a future PI for Non BM unit enhancements.
Integration and Enhancement of Bulk Dispatch Optimiser's Performance	In	PAI/Optimiser	Introduced optimisation manager integration tasks to enable end to end flow.

# Features/Enablers Incomplete in PI4

The following features and enablers were not completed to the PI DoD within PI4:

Title	Milestone	Owning Squad	Comments
Derive Energy Profiles from Accepted Instructions for Energy Balancing Services	426	Market Services	Milestone 424 (M1) activities prioritised and to be taken up in PI. Elaboration complete
Derive MFTT residual and apply to Energy profiles for Energy Balancing Services	426	Market Services	Milestone 424 (M1) activities prioritised and to be taken up in PI5. Elaboration complete.
Derive Energy Profiles from Declarations for Energy Balancing Services	424	Market Services	Partially complete with 1 bug outstanding and to be carried over into PI5.
Analyze and Track the Instructions that are Sent-Out	426	PAI/Optimiser	Stretch goal as due to dependencies on (UI design, development, integration) needing completion before work could start.
Receive responses against the Instructions issued	426	PAI/Optimiser	Changed approach to test via a mock as this required the BM interface
Visualization of 'Summary' View of the Harmonised Instructions	426	PAI/Optimiser	Development in progress and continuing into PI5.
Review/Approve the Harmonised Instructions in Bulk	426	PAI/Optimiser	Development deprioritised in PI4 and planned in PI5.
Bulk Dispatch Optimiser Supports the Min Flat-top Requirements	425	PAI/Optimiser	Development in progress and continuing into PI5.
Create Zonal MW requirement for pre-defined timepoints	425	Secure Networks	Core user stories for this feature were prioritised to support the end to end flow and demo, the remaining user stories (edit requirement timepoints) will be delivered in PI5. FBCPROG-409 was split out of this feature and is planned to be delivered in PI5. This feature covers the integration of the requirement editor with backend components to deliver Milestone 425 (M2).
DevOps - Dev Int (D4)	259	DevSecOps	Moved into PI5 as work could not start on time due to delays with 255 (D2) and 259 (D3). Workshop to demonstrate environment to squads planned for 5.1.