

Public

NESO Technology Advisory Council

TAC-23 5th June 2026

Meeting pack

TAC-23 agenda – 5th June 2026

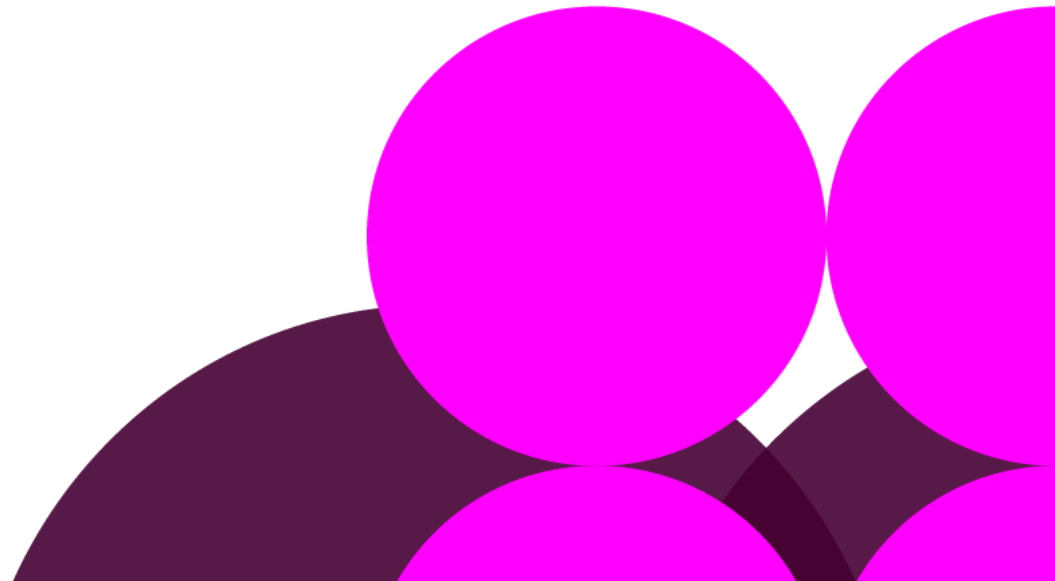
Item	Start	Finish	Time	Item	Presenter	Notes
1	9:00	09:05	5	Welcome & Apologies	Eric Brown	
2	09:05	09:10	5	Minutes of last meeting and matters arising	Eric Brown	
3	09:10	09:20	10	Feedback from the last meeting	Cameron Shade	
4	9:20	10:05	45	Connections to Energise	Darren Holyoake	
5	10:05	10:50	45	NESO AI Capabilities	Lyndon Ruff	
	10:50	11:05	15	BREAK		
6	11:05	11:50	45	Sector Digitalisation	Carolina Tortora	
7	11:50	12:00	10	Open Balancing Platform Update	Brendan Lyons	
8	12:00	12:10	10	Subgroups update	Joe Stepney	
9	12:10	12:20	10	Next meeting	Eric Brown	Next meeting: Friday 4th September 2026
10	12:20	12:30	10	AOB	Eric Brown	

Are there any personal or professional conflicts of interest anyone would like to declare pertaining to this agenda?

Welcome and apologies

Item 1

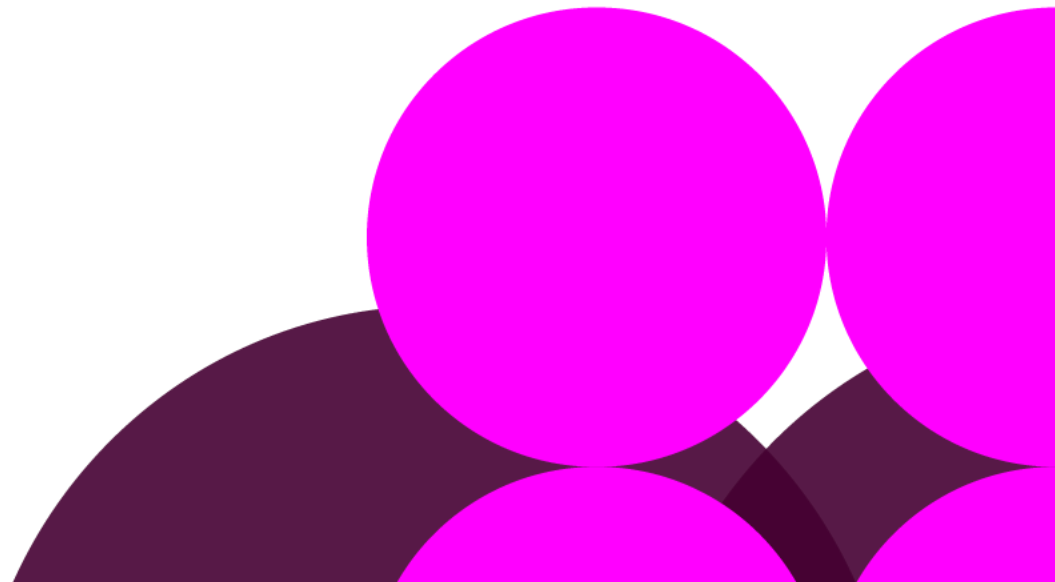
Eric Brown



Minutes of last meeting and matters arising

Item 2

Eric Brown



Minutes of last meeting and matters arising

- Minutes of TAC-22 have been published on the NESO website.
- The material from the meeting has also been published.
- This section will be used to discuss any matters arising.

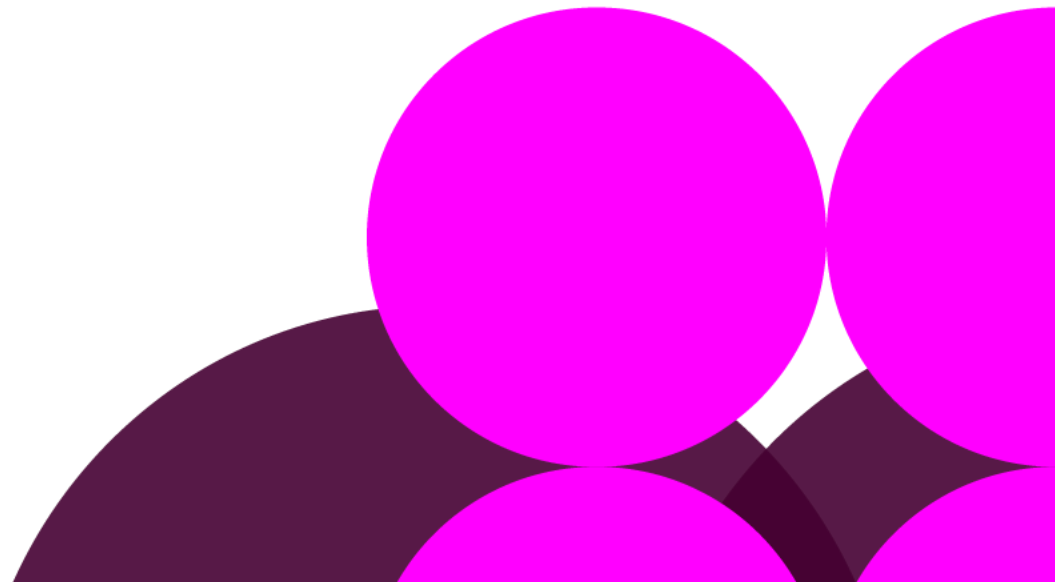
Actions

ID	Action Description	Owner
A30-	Organise a call with Chair, SR and CT on Innovation initiatives in the sector.	CS
A31-	Feedback any RII02 highlights NESO should ensure they cover.	All
A32-	Pass on information to SR as CT DOA on Energy Network Centre of Excellence on AI	JS
A33	Investigate and resolve chat functionality issues on teams	JS

Feedback from the last meeting

Item 3

Cameron Shade



Feedback from the last meeting

Topics discussed at the last meeting were:

- RII02 Journey
- Digital Strategy
- Connections and Digital

Digital Strategy	Action Taken Since
• TAC recognised how difficult it can be to introduce change in complex environments • TAC encouraged NESO to design strategies flexible to innovative practices in other markets	• NESO has been detailing the digital strategy by working with a wider team across the business, identified priority areas for digital strategy and refining this further to align and attain executive sponsorship

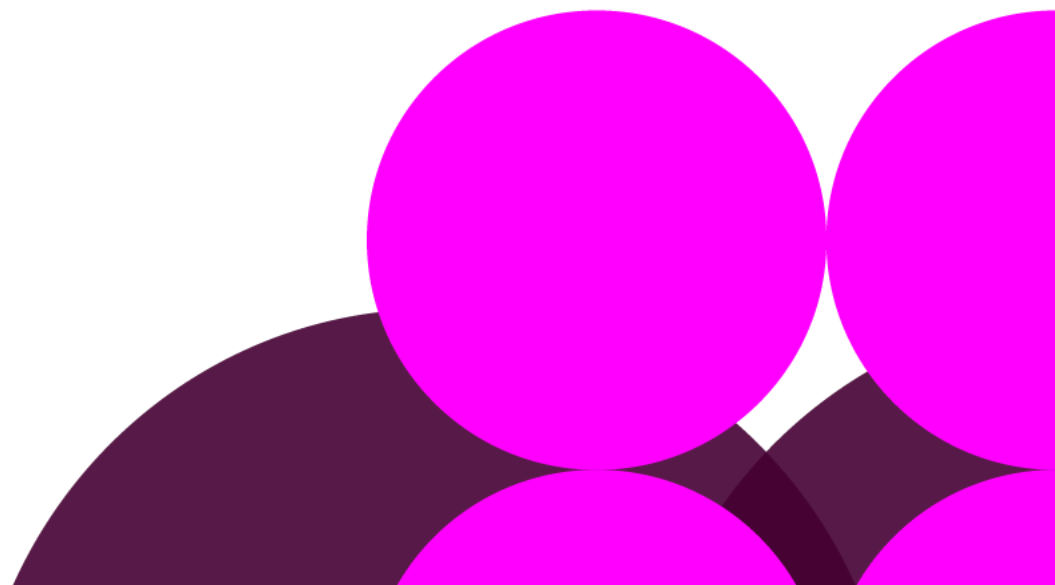
RIIO2 Journey	Action Taken Since
• NESO asked TAC for highlights to mention during RII02 • TAC asked whether the lessons learnt during that time have been captured for the future • TAC recognised the difficulty of change building from legacy to new	• The feedback from the TAC was accepted and we have incorporated their inputs. The retrospective is in internal review.

Connections and Digital	Action Taken Since
• TAC asked how NESO was utilising technology across the Connections solution • TAC liked the one team mantra and suggested adopting it for sector wide challenges	• Connections has continued to leverage the digital capabilities of its host platforms including the use of Vibes and Co-pilot in the SDLC and AI analytical insight capabilities.

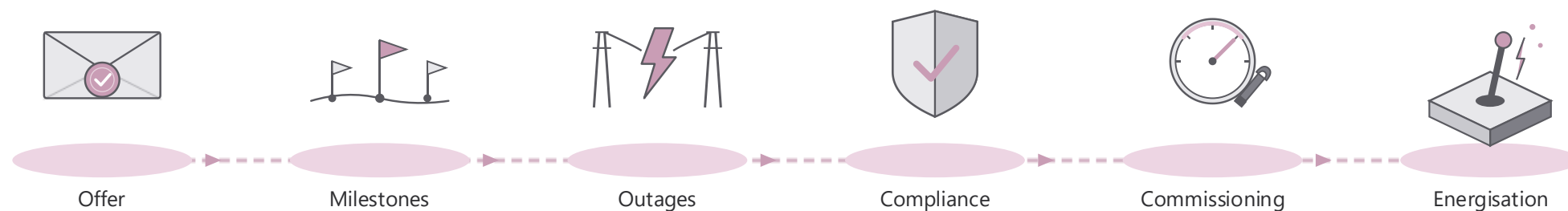
Connections to Energise

Item 4

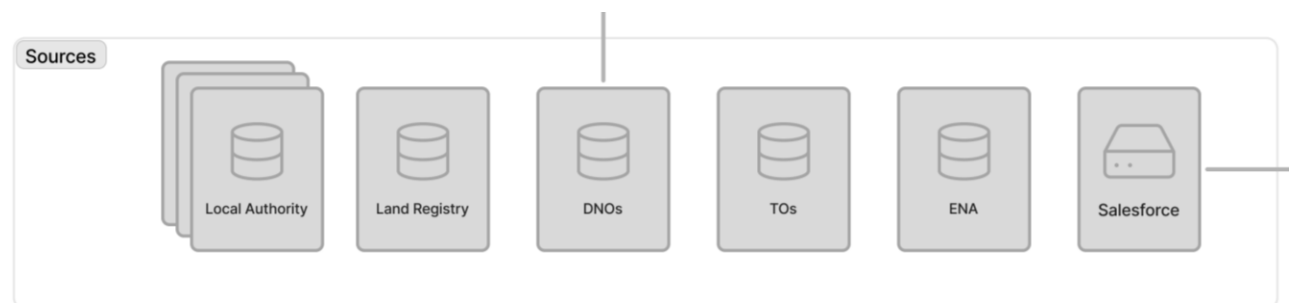
Darren Holyoake



Energise360 – Problem Statement



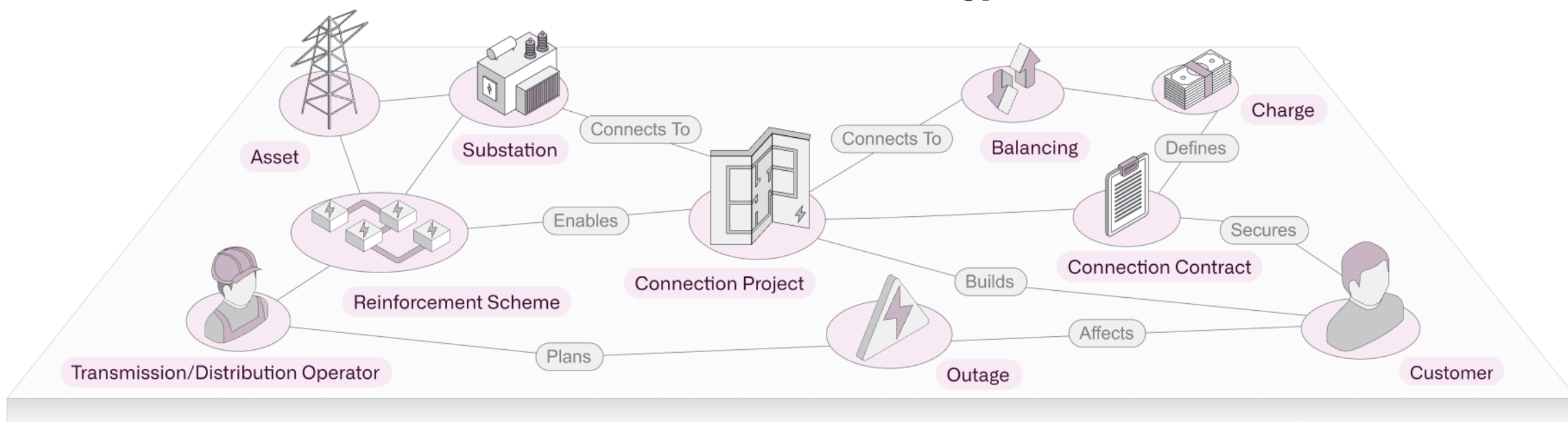
- There are multiple different systems used to track, manage or process a project from application to energisation
- Data about the end-to-end life-cycle for a connection project is captured in siloed source systems across NESO's digital estate and externally.
- No one team or system has a real-time visibility over the end-to-end journey from application to energisation
- This causes a fragmented customer journey
- The lack of a single source of truth creates difficulties in providing accurate insight and reporting accurately, reducing external stakeholder confidence



Energise360 – Solution

Integrate data from across NESO Digital Estate and published external data to create a single data model for connections from Application to Energisation

The Connections Ontology

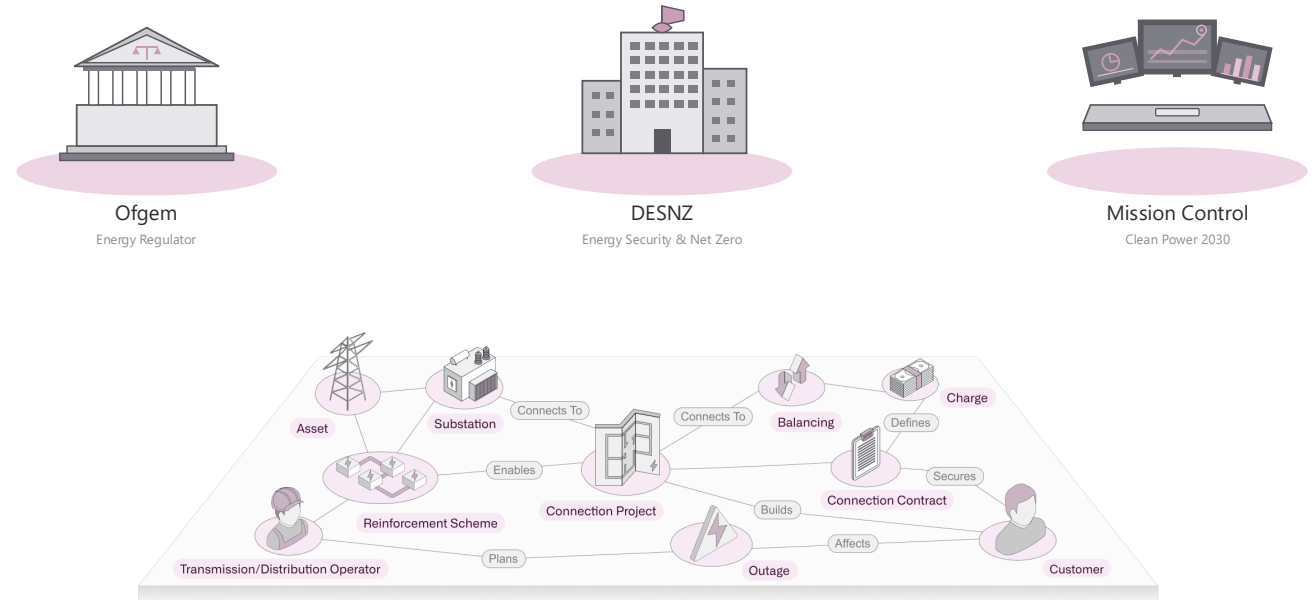


Create applications that leverage the **Connections Ontology** to drive visibility and accountability across the industry.

Energise360 – Solution

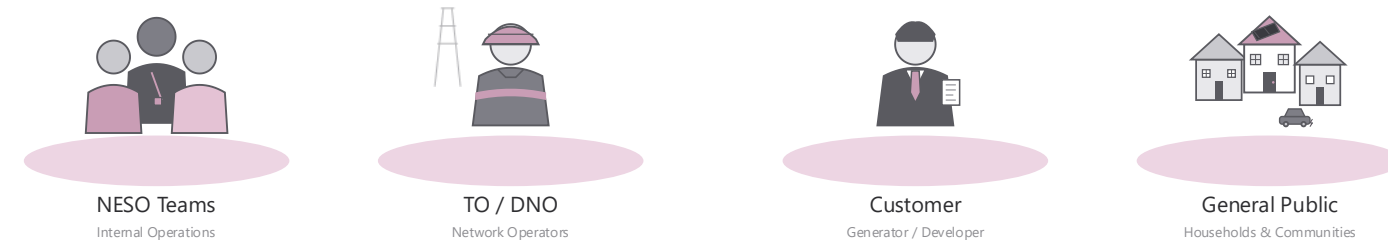
Overall solution;

1. Create applications that leverage the **connections ontology** to drive visibility and accountability across the energy industry.
2. Provide secure access to relevant data to external parties to ensure that the the industry has a single version of the truth in real-time

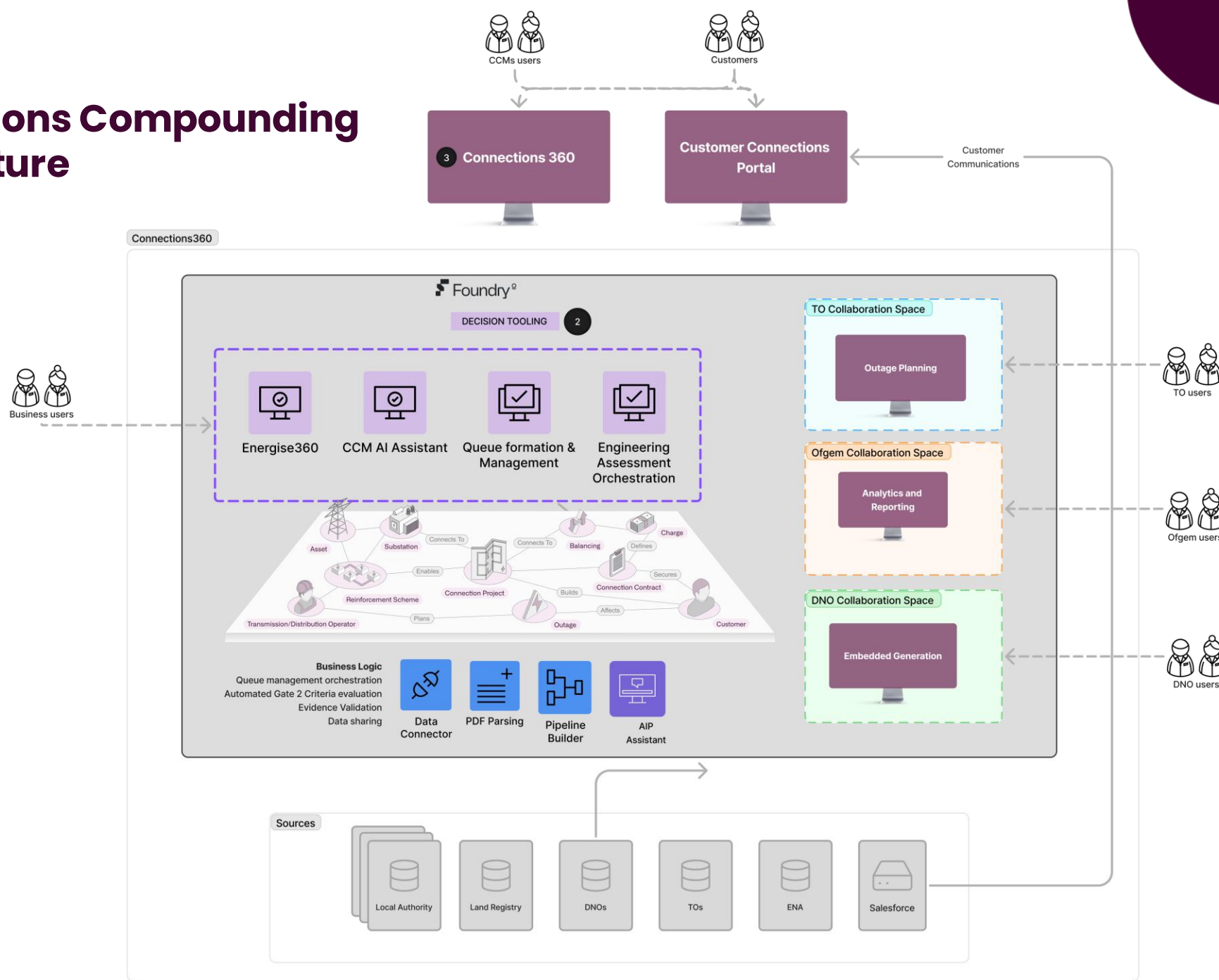


Starting with;

1. Creating a single source of truth for the the current application window for offers and milestones and using this to drive reporting to DESNZ and Ofgem



Connections Compounding Architecture



NESO AI Capabilities

Item 5

Lyndon Ruff

Aim and Agenda

Target Outcome

Our AI vision outlines three key pathways, NESO Excellence, GB Industry Champion and Global Impact. This document outlines the people capability and capacity needed to be able to deliver and realise these ambition pathways.

Key Goals

We will focus on Three areas:

- **Our Journey**
 - *Our journey of*
- **Setting up for Delivery**
 - *Team pathways, Target delivery model,*
- **AI Skills shift**
 - *Role in extending capability and enabling industry collaboration*

Key Points to Note

- Focus of this discussion is on the talent needed to deliver AI
- In parallel, we are addressing the skills gap across the organisation for adoption
- This can be discussed at a future TAC session (Initial content is included in the Appendix)

Where we'd value your input

1. Whether this capability model is sufficient to deliver AI at scale
2. The balance between internal capability and partner reliance
3. Whether we are over or under-investing in specific skills
4. Key risks, gaps, or dependencies in the proposed approach

Executive Overview

NESO must move from a centralised AI capability to a domain-embedded AI function to deliver AI at scale.

Problem

- AI delivery is fragmented and not scaling beyond concepts
- High-value AI requires deep integration with domain expertise
- Current capability lacks governance, assurance and operational control

Shift

- Embed multi-disciplinary AI capability within domain-aligned pods
- Support delivery through a central AI capability and platform
- Define clear ownership between internal teams and partners

Outcome

- Scalable and repeatable AI delivery across NESO
- AI embedded into operational decision-making
- Stronger control of risk, performance and governance

Topics for Discussion

- **Scaling AI capability from central expertise to embedded delivery**
- **Balancing internal capability with partner leverage**
- **Translating applied AI research into reusable operational capability**
- **Building assurance, governance and evidence thresholds for decision-grade AI**
- **Driving adoption and ecosystem collaboration responsibly**

Applied AI at NESO



Decision-grade AI

Tools must be reliable, explainable and suitable for real NESO decision contexts.



Reusable technical foundations

Methods, models, evaluation patterns and reference implementations should scale across use cases.



Responsible external impact

Research, models and code should be shared where governance, security, IP and data sensitivity allow.

Core Roles



Create state-of-the-art models and research outputs

Develop advanced models, reusable methods, papers, code, benchmarks and open artefacts where governance allows.



Set the applied AI research agenda

Focus effort on the highest-value problems by business value, technical novelty and operational readiness.



Accelerate priority use cases

Turn backlog items and flagship opportunities into validated, production-bound experiments.

Clear Outputs & Benefits

1

Production-bound experiments

Validated prototypes developed with business users and designed to move toward operational use.

2

State-of-the-art AI models and methods

Advanced models and methods tailored to NESO's highest-value energy system challenges.

3

Reusable technical assets

Datasets, benchmarks, baselines, evaluation patterns, templates, model cards and reference implementations.

4

Research publications and open artefacts

Papers, code, models and reproducible pipelines where appropriate governance and approvals are in place.

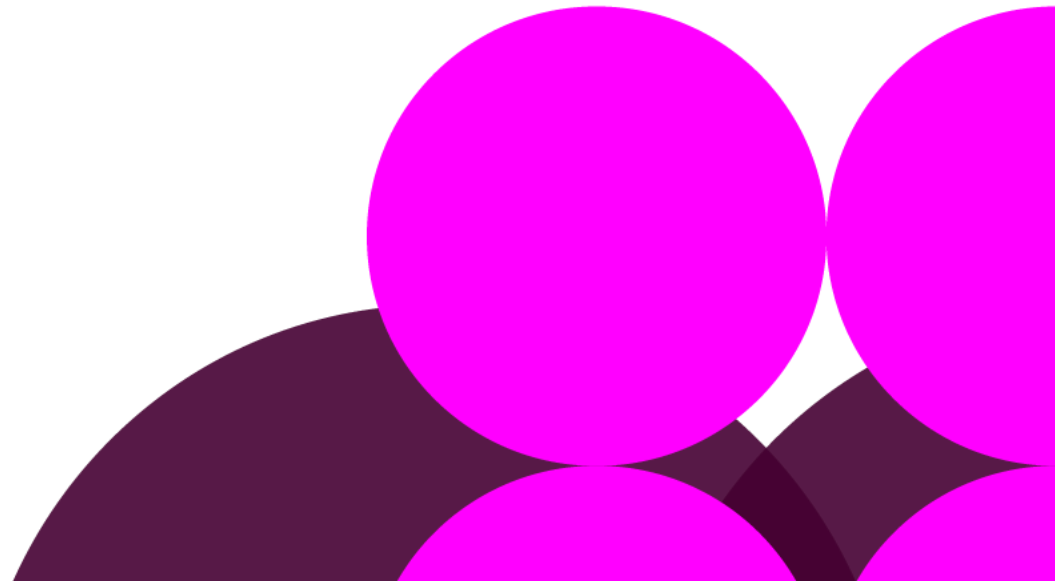
5

Technical guidance for delivery pods

Patterns, reviews and reference implementations that help delivery teams build safely and consistently.

Break

10:50 – 11:05



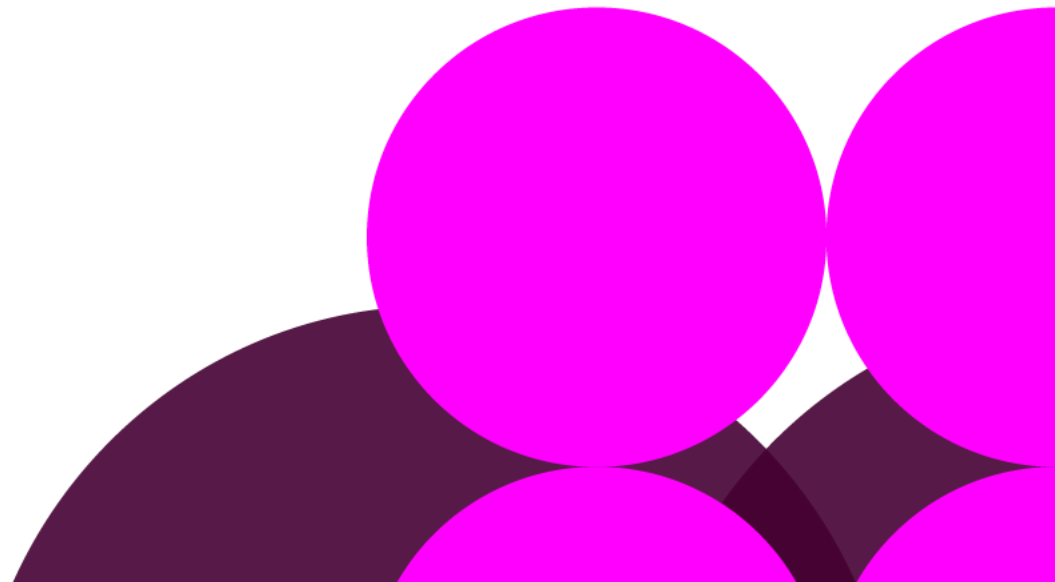
Sector Digitalisation

Item 6

Carolina Tortora

Topics to discuss...

- An update on where we are with Sector Digitalisation
- Reflections on our approaches & scope
- Reflections from TAC on Digitalisation Coordinator role and implications for the sector and the industry
- Update on target sector architecture development



NESO's Sector Digitalisation development

In line with NESO's sector digitalisation objective, anchored in the recently published [Energy Digitalisation Framework](#) and based on existing DSI Coordinator role, NESO is delivering:

- **Target Sector Architecture** – as requested by Ofgem, we are developing to-be view of interoperability for existing and emerging digital public infrastructure incl DSI, FMAR, SDR, CCS in collaboration with Elexon, Recco and other partners. Due 31st Aug
- **Data Sharing Infrastructure** – based on mandate from Ofgem & DESNZ, set up DSI function in NESO, currently delivering enduring capability on behalf of the sector
- **Domain Coordinator** for Core Energy System Services – to develop & own specific data standards & data sets for DSI and collaborated on data standard development with other Domain Coordinators (Elexon & Recco)
- Publish **Sector Digitalisation Plan** – based on the success of SDP1 in Nov '25. This is positioned as programmatic oversight and horizon scanning for existing & future digitalization activities across the sector
- These are aligned with specific **Governance & Corporate Strategy activities**. This entails creation of high-profile engagement materials incl **digitalisation vision** for engagement at senior levels in the sector

High level timelines

Workstream	Outcomes/ Deliverables	May	June	July	Aug	Sep	Oct	Nov	Dec
Governance	Secure minded to position from the Board	Exco & Board “warm up”	Exco & Board – minded to decision					★	
		“New activity” process & gov with Corp Strategy					Consultation on Digi’n Coordinator role – DESNZ Consultation on Target Sector Architecture – Ofgem		
Engagement	Secure support from the sector ahead of consultation	Digitalisation vision “brochure” dev		External Sector Engagement per plan					
			★	★	★	★	★	★	
Est Domain Coordinator Role	As Domain Coordinator own & deliver data standards, data sets for DSI and collaborate with Recco & Elexon	TAC & Architecture sub-group			DSI SAG	TAC	DSI SAG	TAC	
		Alignment on expectations with Ofgem & DESNZ	Establish ownership & delivery for Core Energy System Service – data standards, data sets for DSI, collaborate with Recco & Elexon						
Target Sector Architecture	To be sector architecture map & roadmap for interoperable digi public infrastructure	As is & Gaps	To be & write up			★			
			Engage & socialise		Publish				
DSI Coordinator	Deliver capability for the sector		PI3	★	Participant DPN deployment		★		
Sector Digitalisation Plan	Publish SDP2 as of programmatic oversight that Digi Coordinator will be responsible for	Mobilisation		MVP tech baseline build complete	Sector Engagement		UAT/OAT start	★	
							Publication (in sync with Ofgem & DESNZ consultations)		

Digitalisation Coordinator role

Policy & Vision

Sets the **vision for the industry & policy objectives** to be met

Digitalisation Architect

- Owns the 'map' of **key workflows** between industry bodies and coordinates the **digitalisation architecture**
- Provides **strategic recommendations** to government
- Sets **performance metrics**



Frameworks & Industry Coordination

- Sets and manages the **frameworks, approaches and recommendations** for industry coordination
- Manages **governance processes**
- Ensures **interoperability and alignment** within other sectors



Data Standards & Industry Technical Architecture

- Sets the **detailed data standards** (quality, structure, security)
- Owns the '**library**' of **standards**
- Defines the **platforms** that are required to support data sharing and industry workflows



Programme Definition, Allocation & Management

- Creates high-level scope of **platform packages** and allocates them to Domain Coordinators
- **Assures digitalisation** delivery
- Identifies, manages and mitigates **risk**



Delivery Bodies

- Build, operate and maintain **digital systems** to support coordination
 - **Proposes digital solutions** in response to coordinator requests

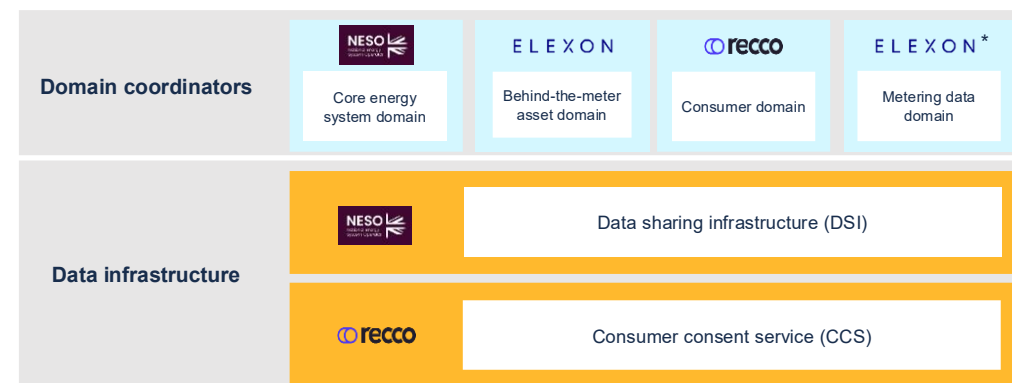
NESO as Domain Coordinator for Core Energy System

What it does?

- Owns and develops data standards & data sets for a specific domain
- Defines data quality, structure and security standards
- Maintains the “library” of domain standards
- Works with DSI and other Domain Coordinators (e.g. Elexon, RECCo) to align standards
- Supports delivery of data into the DSI ecosystem

Key Outcomes:

- Consistent, interoperable data across the sector
- Reusable, standardised data sets powering digital public infrastructure (DSI, SDR, FMAR, CCS)
- Improved data quality and trust for industry decision-making
- Faster integration across parties and systems
- Reduced duplication and fragmentation in data handling



NESO Digitalisation Vision

NESO is currently:

- Scoping a whole system vision that underpins our sector Digitalisation work

The digital energy system of the future will fundamentally transform how stakeholders engage with the sector

	Today	In 18 months	2031
Consumers 	 "Data from my home consumption and smart meter does not seem to go anywhere"	 "I understand my costs and can easily enrol in flexibility programmes" "I can see how my usage contributes to overall system cost"	 "My assets respond automatically to system signals and generate revenue from flexibility" "I can verify my retailer is securing the best deal"
Network operators (TO & DNOs) 	 "We exchange planning data with NESO via email and spreadsheets" "Plan changes often arrive at short notice"	 "We have a two-way automated data exchange with NESO" "System access decisions are optimised and data-driven, reflecting ours and system-wide needs"	 "Network models update continuously from a shared data foundation" "We share operational data (e.g., dynamic line capacities) in near real-time"
Generators (Asset owners) 	 "I bid into markets based on proprietary forecasts and wholesale signals" "Site selection relies on the connections register and static grid analysis"	 "I develop projects using a central interface for locations with offers in principle" "There is greater transparency into live control room decisions"	 "AI optimises dispatch against real-time system conditions" "Assets are sited where the system requires them, informed by the national planning data"
AI energy traders 	 "Algorithms depend on public data, proprietary models, and system operator data" "Often, we hold a data advantage over a system operator"	 "I access a data-rich environment via APIs, using centralised forecasts" "Algorithms respond to market signals, supported by shorter settlement periods"	 "Algorithms trade against a real-time, coordinated view of the GB system" "A digital coordinator, connects planning, operations, and markets"

1

Benefits for stakeholders

For consumers: Lower bills, active participation and transparency over their energy

For network operators: shared visibility, coordinated planning and predictive operations

For generators: faster connections, clearer market signals, and data-driven investment

Unlocking these benefits requires a central body to set common standards, provide shared data infrastructure, and ensure the system digitalises in a way that works for all participants. **NESO is well placed to play the strategic role of a digital coordinator for the sector**

Architecture context

The sector needs clearer coordination, transparency, and governance around digital and data-related change.

There is a need to **define, oversee, and align architectural standards, roadmaps, and design decisions** to ensure interoperability, reduce duplication, and support efficient whole-system outcomes.

Architecture scope

The ask

Ofgem has requested that NESO undertake an **architecture exercise** to support the development of a coherent GB digital energy ecosystem.



Purpose



Diagnose the **current fragmentation** across digital public infrastructure programmes



Produce a **reference architecture** that clarifies how these infrastructures interoperate,



Provide **immediate, evidence-based recommendations** that inform Ofgem & DESNZ's consultation in 2026



Ensure this work is **non-prejudicial** to future governance decisions

Objectives

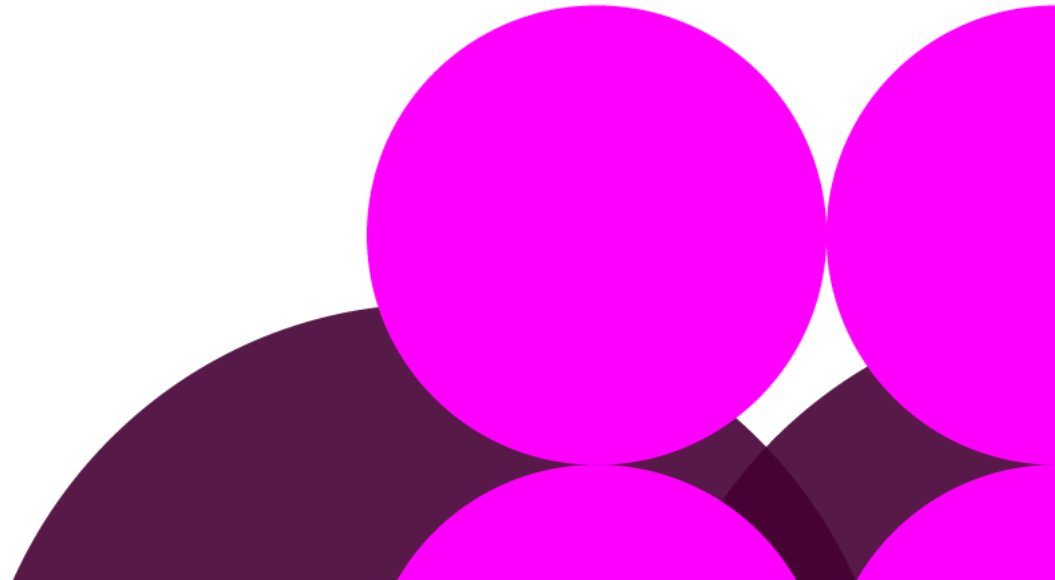
1. Establish a Whole System Digital Architecture Baseline
2. Define the 'To-be' reference architecture
3. Produce Prioritised Architectural Interventions
4. Support the case for an enduring function



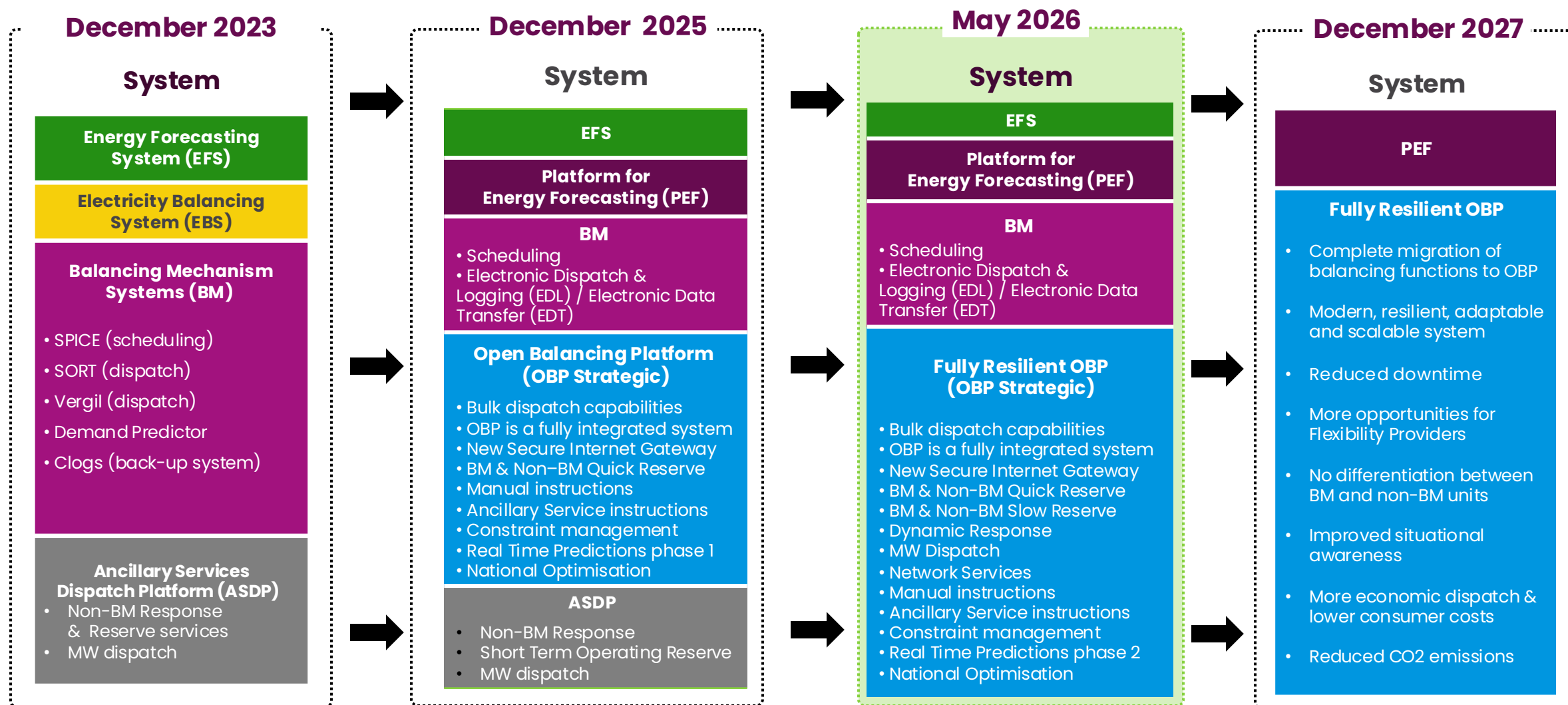
Open Balancing Platform Update

Item 7

Brendan Lyons



System Transformation – Where are we?

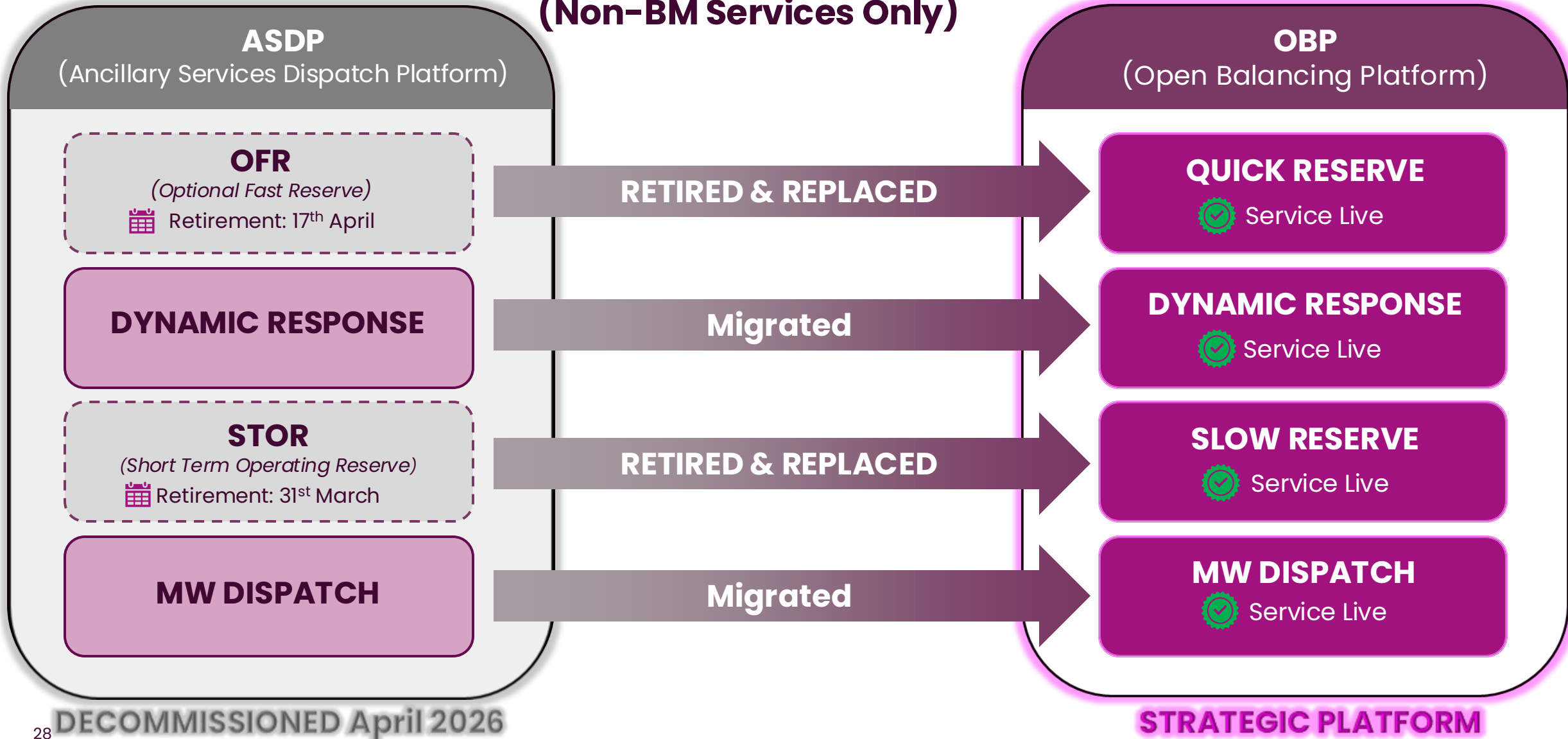


If you missed our Mar 2026 event, catch-up [here](#) to view more detail about where we are in our balancing & forecasting transformation journey.

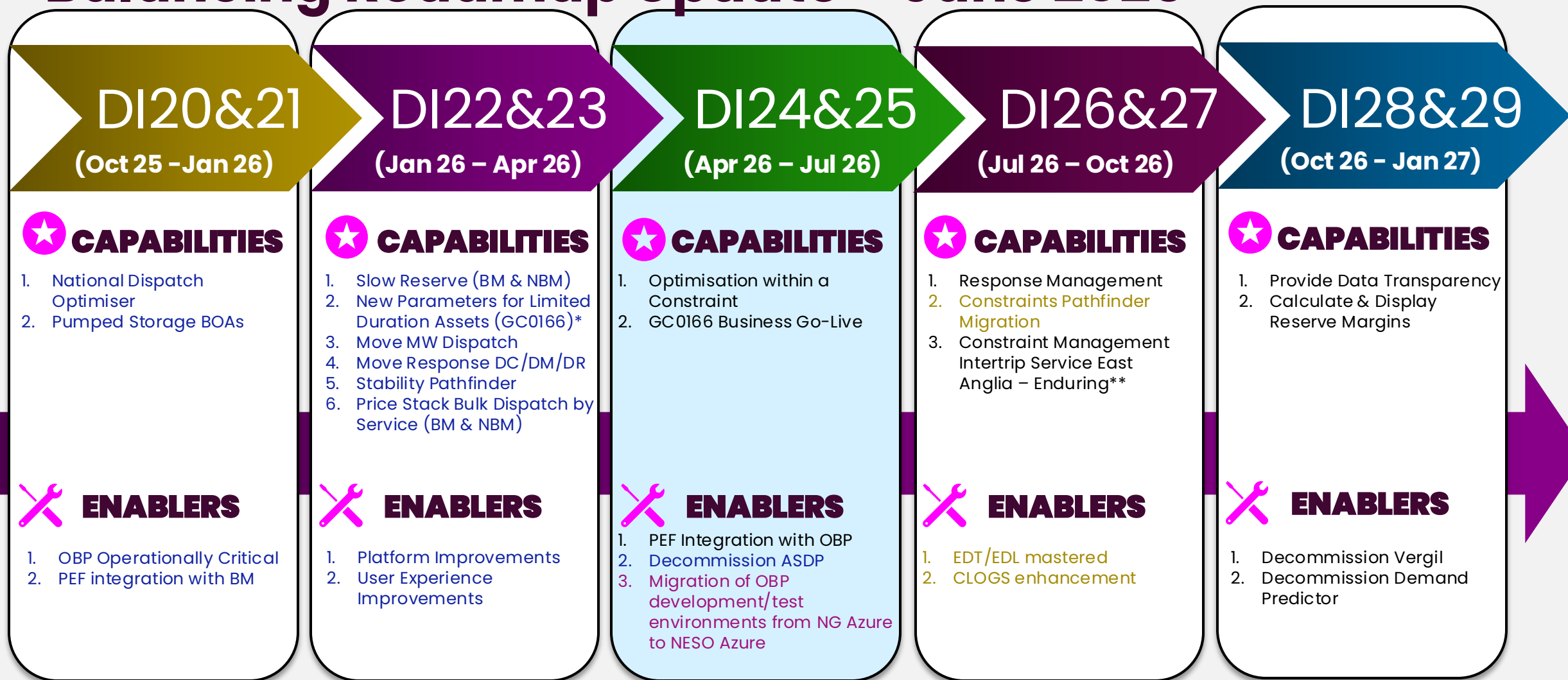


Ancillary Services Dispatch Platform Migration & Decommissioning

(Non-BM Services Only)



Balancing Roadmap Update – June 2026



Legend:

Delivered
 Brought Forward
 Moved Backwards
 New Scope
 No change

API – Application Programming Interface
ASDP – Ancillary Services Dispatch Platform
BMU – Balancing Mechanism Unit
BOA – Bid Offer Acceptance
CLOGS – Contingency Logging System

DC – Dynamic Containment
DM – Dynamic Moderation
DR – Dynamic Regulation
DX – Dynamic Response

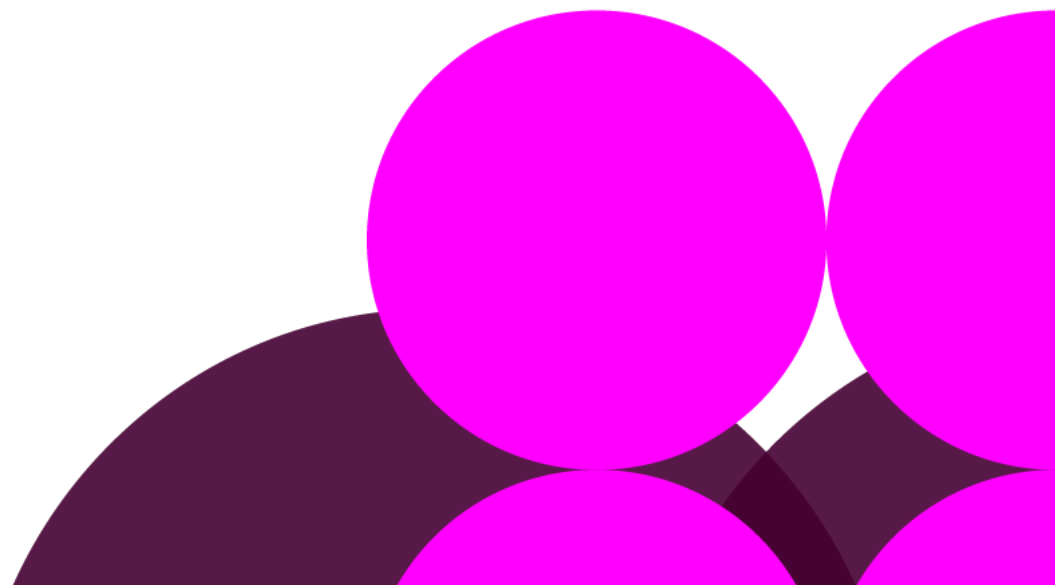
EDL – Electronic Dispatch & Logging
EDT – Electronic Data Transfer
NBM – Non-BM Unit
DI – Delivery Increment

DI Closure Reports

Subgroups update

Item 8

Joseph Stepney



Subgroups update

Digital and Data Strategy held 17th April

- NESO Digitalisation Strategy Action Plan
- Next meeting 10th July 2026.

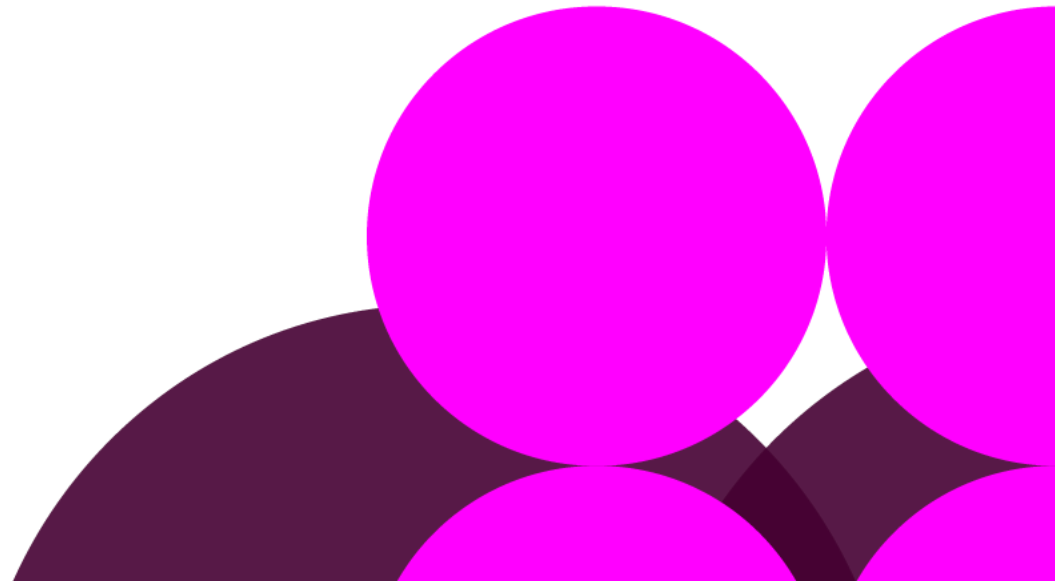
Control Room of the Future held 15th May

- Operability Strategy Report (OSR)
- Network Topology Optimisation
- Future Control Strategy
- Next meeting 14th August TBC.

Next meeting

Item 9

Eric Brown



Next meeting

Meetings are every quarter for a half-day on the first Friday morning of the month, 9am-12.30pm.

- 4th September 2026 – In person location TBC

AOB

Item 11

Eric Brown

