

Reform Delivery Committee

30 March 2023



1. Welcome

We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

We pay respect to their Elders past, present and emerging.

Agenda

#	Time	Topic	Ask of Committee	Presenter(s)
1	10:00-10:10am	Welcome		Violette Mouchaileh (AEMO)
2	10:10-10:15am	Action Items from prior meetings & workshops	For noting	Peter Carruthers (AEMO)
3	10:15-10:35am	Change management update & Ask of the Committee	Open discussion & endorsement	Lance Brooks (AEMO)
4	10:35-11:05am	Taking cost out for industry and consumers • Blueprint update	Open discussion	Dom Mendonca (Accenture)
5	11:05-11:20am	Stage gate update	Open discussion	Lance Brooks (AEMO)
6	11:20-11:30am	Setting an informed Go-Live date	For noting	Lance Brooks (AEMO)
7	11:30-11:45am	Progression of Foundational & Strategic initiatives	Open discussion	Ulrika Lindholm (AEMO)
8	11:45-11:55am	Other business	Open discussion	Violette Mouchaileh (AEMO)
9	12:00 pm	Thanks and close		Violette Mouchaileh (AEMO)

Appendix A: Strategic / Foundational initiatives overview

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2. Review of action items

Action Items from prior meetings & workshops

RDC Open Actions

(Ref: Item = Meeting number/Agenda item number/Ref)

Item #	Action	Responsibility	Status	Notes
8.1	AEMO to consider engaging with industry I.T stakeholders and vendors as part of the NEM2025 engagement.	AEMO	Closed	Approach decided and incorporated into forward engagement plan
8.2	RDC members to suggest opportunities on how the NEM2025 program can effectively engage better with industry on various levels to avoid establishing more workshops/working groups.	RDC members	Open	
8.3	AEMO to implement the proposed approach to Informed Go Live on a reform initiative as a first step in implementing, learning and refining the process. AEMO to identify candidate reform initiative(s) (not FTA2) and advise the RDC.	AEMO	Closed	Item 6 on today's agenda.
8.4	AEC to seek feedback from members regarding the proposal and revert to AEMO with any additional points as soon as available.	AEMC	Open	

RDC Collaborative Workshop Open Actions

(Ref: Item = Meeting number/Agenda item number/Ref)

Item #	Action	Responsibility	Status	Notes
1.3.0.1	AEMO to define the ask and how it will be conducted.	AEMO	Closed	Working draft shared with RDC on 1/3/23.
1.3.0.2	Fergus Stuart to provide an email to the committee on an approach for AEMO to consider.	Origin Energy	Closed	Input received with thanks.
1.5.7.1	AEMO to advise what the ESB three priority data projects are.	AEMO	Closed	Info shared with RDC on 1/3/23.
1.7.0.1	Members to provide any comments regarding the change register and roadmap by COB Friday 24 February 2023.	RDC members	Closed	

3. Change management update & Ask of the Committee

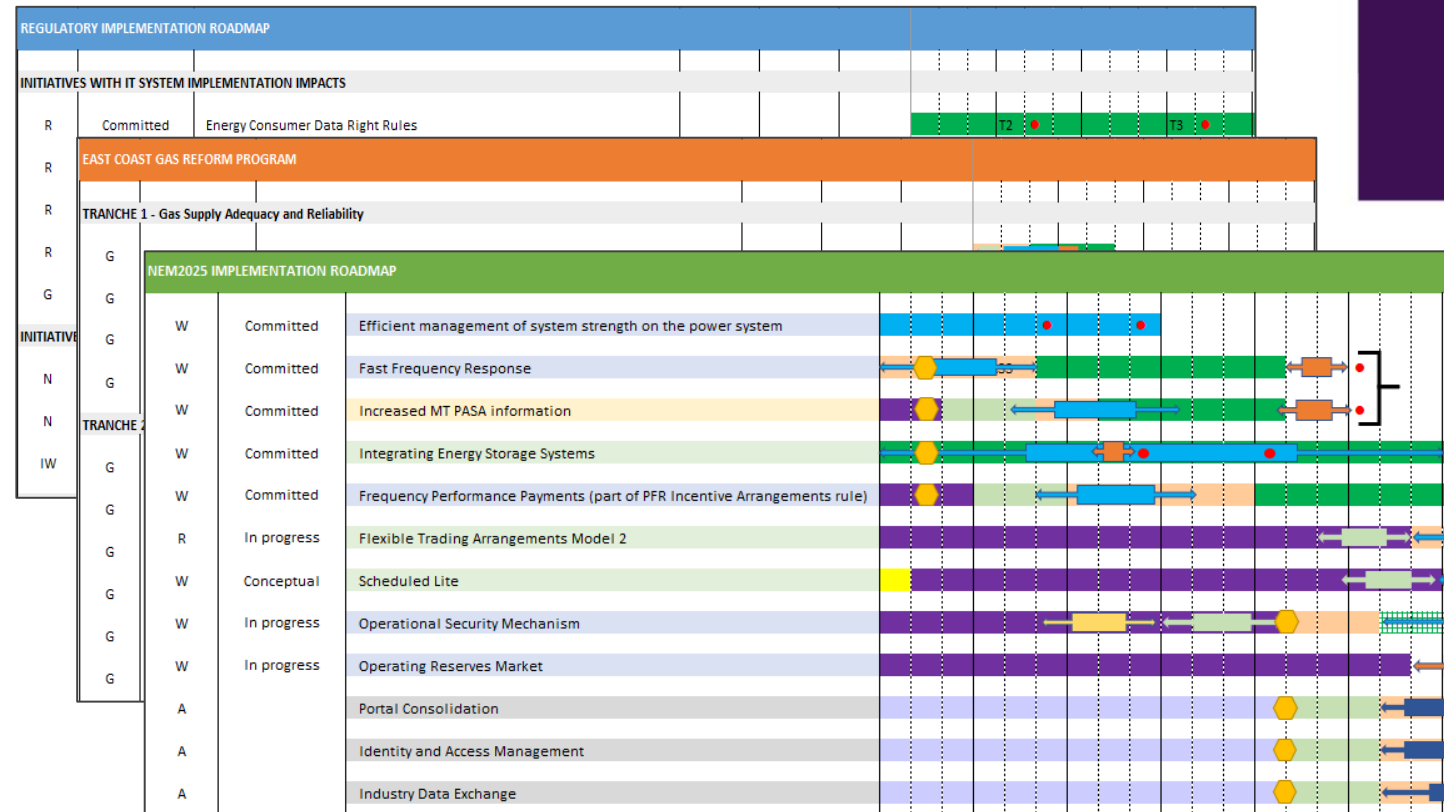
Recap: Recommendations to address material changes post FEB workshop

Initiative	Update Roadmap (Timing, Initiative Name, Stage Gate)	Complete Detailed Impact Assessment	Re-assess Bundle, Sequence & Prioritisation	Remove Initiative
Operational Security Mechanism	✓	✓	✓	✗
Flexible Trading Arrangements Model 2	✓	✗	✓	✗
Scheduled Lite	✓	✗	✓	✗
Capacity Mechanism	✓	✗	✗	✗
Congestion Management Mechanism	✓	✗	✗	✗
DER Initiatives	✓	✗	✓	✓ (Turn-up Services Only)
Data Strategy Initiatives	✓	✗	✗	✗

AEMO are progressing with a preliminary assessment that will help to inform timelines and impacts of the Operational Security Mechanism (see Section 6), as well as further opportunities to bundle, sequence and prioritise the implementation of initiatives (see Section 5)

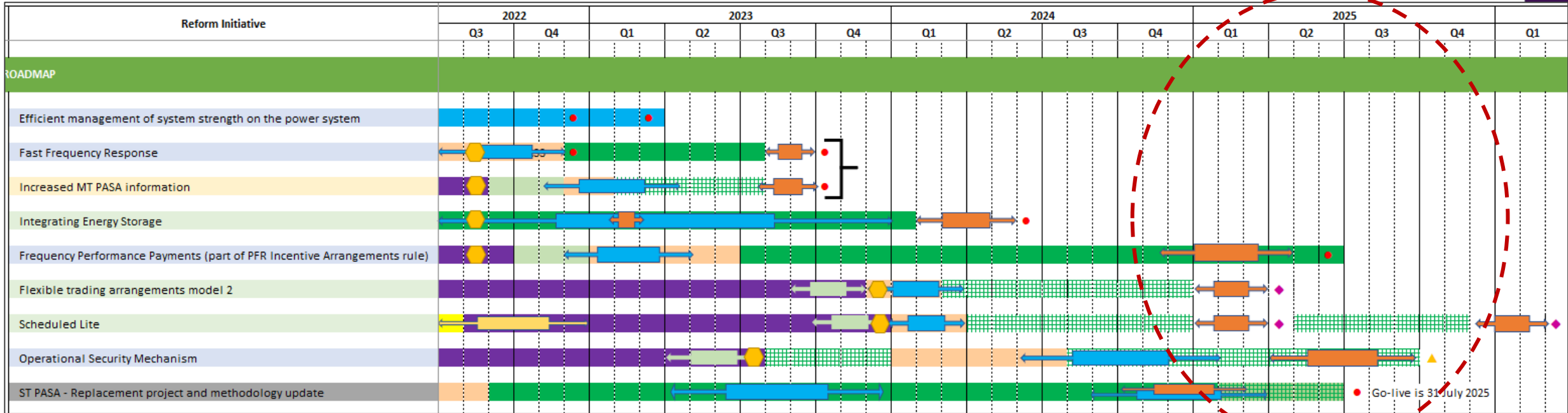
NEM Reform Implementation Roadmap (V2) developed

- Various incremental / material changes made to initiatives as per the collaborative workshop
 - Removal of Turn-up Services
- TA initiatives split in two to reflect likely implementation requirements
 - 1) Enhanced information; and 2) Congestion Relief Market & Priority Access Model
- General restructure of initiatives within the Roadmap consistent with committed or estimated go-live dates
- Stage gates updated (see Section 5)
- Removal of non NEM Reform Program initiatives implemented in 2022
- New East Coast Gas Reform Roadmap



AEMO propose publishing this version of the Roadmap subject to any further feedback as a rebasing of the NEM Reform Program. A subsequent version of the Roadmap will be published incorporating the findings of the Blueprint Assessment (see Section 4) in due course and subject to RDC feedback

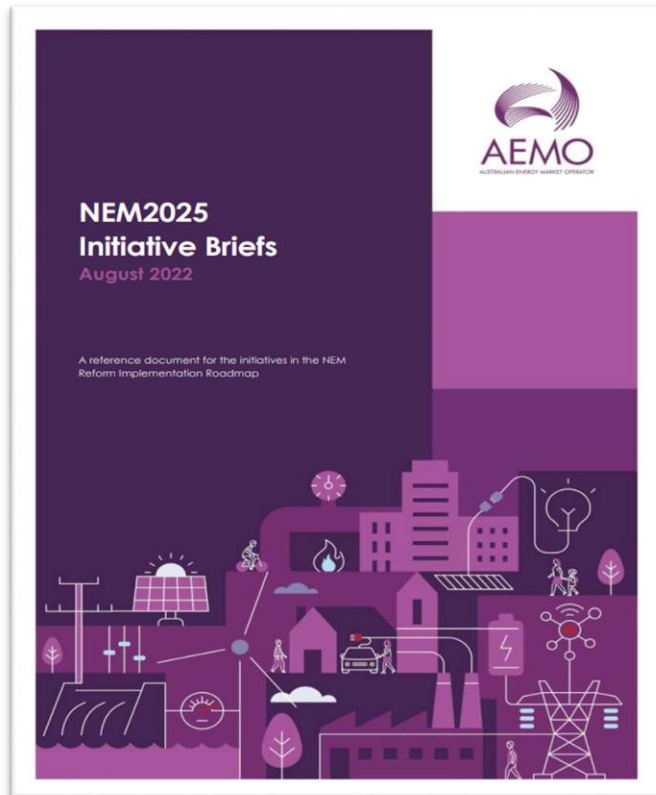
2025 on the surface remains a congested delivery year



- As discussed at our February collaborative workshop 2025 will be subject to:
 - Timing and outcomes (e.g., scope) from the AEMC rules consultation process on key initiatives (including OSM, FTA Model 2, Scheduled Lite)
 - Findings from the Blueprint Assessment work including opportunities to bundle, sequence and prioritise implementation, or where possible adopt a phased implementation

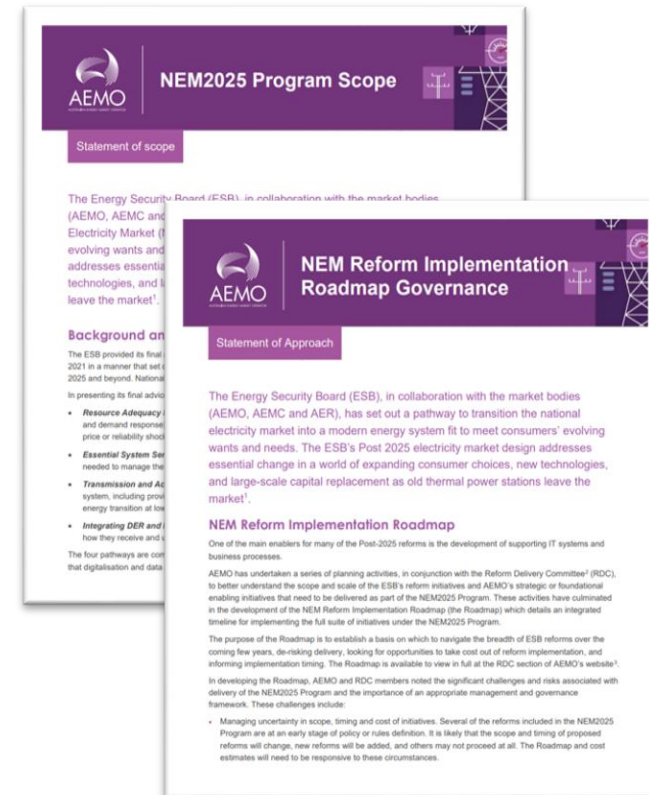
Updates to supporting artifacts

INITIATIVE BRIEFS



- Various edits to initiatives capturing incremental and material changes including for example:
 - Scope of CIS and T&A reform
 - Timing of next steps
- Removed Turn-up Services
- Removed indicative scheduled for initiatives (captured in the Roadmap as well as via milestone updates)

PROGRAM SCOPE & GOVERNANCE



- **Program Scope:** Minor edits to inline with changes to Initiative Briefs
- **Governance:** Updates to stage gate timing (see Section 5)

Addendum to Gate 1 Business Case acknowledging removal of Turn-up Services in development

Ask of the Committee

- AEMO's intention currently is to include the 'Ask of the Committee' as part of next publication of the Roadmap and supporting materials.

AEMO welcomes any feedback from Committee members on how this is worded

In collaboration on the revised NEM Reform Implementation Roadmap, AEMO and RDC members worked through the change management process in accordance with the set NEM2025 governance arrangements.

As part of this process RDC members:

- Recognised the potential for congestion in 2025 resulting from the implementation of multiple reforms;
- Noted the uncertainty around the progress and timing of some initiatives currently earmarked for the 2025 timeframe, including Operational Security Mechanism (OSM), Enhanced Information. Congestion Relief Market & Priority Access, Flexible Trading Arrangements (Model 2) and Schedule Lite;
- Agreed the need to navigate this potential reform congestion, along with other challenges as they arise across the full scope of the NEM Reform Program, in coordination with the relevant market bodies; and
- Agreed the Roadmap is a true reflection of the NEM Reform Program's implementation requirements at this time based on publicly available information and recognising the above uncertainties and challenges.

4. Taking costs out for industry and consumers

Context / Background

- AEMO has been looking at ways to reduce costs:
 - Providing transparency and a roadmap for industry to enable better planning across industry,
 - Taken on board the solution proposal for Dynamic Aggregated Dispatch Conformance (IESS), rather than Static ADC model, and
 - Moving to twice-yearly releases, thereby reducing AEMO's environment and deployment costs and simplifying industry testing.

What does the Blueprint do?

- Assessing impacts across AEMO and the industry
- Planning to level out the amount of change for AEMO and industry participants over time
- Identifying potential scope for market efficiencies (cost take-out opportunities through increased AEMO scope)
- Planning to minimise costs (total cost to industry), through bundling and sequencing, for example by reducing double-handling of changes
- Planning for the twice-yearly releases, and minimise the environment requirements and associated risks
- Planning to reduce roll-out risks through allowing sufficient time for development and testing (including industry testing)

How should AEMO engage with industry on cost take-out opportunities?



Question to committee: Does this timeframe seem appropriate? How do you suggest AEMO can best engage on the outcomes of the Blueprint work?

5. Stage gate update

Stage gate updates

Do Committee Members consider this approach to provide sufficient transparency to stakeholders on the timing of investment decisions?

- Changes in the timing of multiple initiatives has required updates to the proposed Stage Gates to ensure consistency with the governance framework.
- However, ongoing uncertainty means setting even an anticipated time can be difficult. For this reason AEMO propose removing Stage Gates from the Roadmap itself and instead including reference to potential timing via Governance Approach only.

Stage Gate	Initiatives	Description	Anticipated Timing	Update
-	Gate 1 Business Case	Presents the holistic view and sets overall budgetary envelope subject to a draw-down mechanism	Q3 2022	Completed
1	IESS, FFR, MT-PASA, PFR, OSM, Dispatch Target State	Mandatory initiatives for 2022 Final Rule Determinations, tactile uplift for Dispatch Target State, planning / prototyping funding for OSM	Q3 2022	Completed – Stage Gate 1 AEMO approved for implementation (09/22)
2	Capacity Incentive Scheme, Enhanced Information, Congestion Relief Market & Priority Access	<p>Stage Gate 2A: CIS</p> <p>Stage Gate 2B: Enhanced Information, Congestion Relief Market & Priority Access Model</p> <p>Separated due to possible different policy timelines for each initiative</p>	Subject to policy development	<p>Changes to initiative names only</p> <p>Awaiting further policy development</p>

Stage gate updates (continued)

Stage Gate	Initiatives	Description	Anticipated Timing	Update
3	IDAM, IDX, PC Dispatch, Bids & Offers, and Constraints Target State FRC Target State, CoMaster	AEMO Foundation & Strategic initiatives, subject to further assessment including industry consultation Stage Gate 3A: IDAM, IDX, and Portal Consolidation Stage Gate 3B: Dispatch, Bids & Offers, and Constraints Target State Stage Gate 3C: FRC Target State / CoMaster	Subject to further assessment and consultation with industry <i>Stage Gate 3A: Tentatively Q3/Q4 Cal. 2023</i>	Removed anticipated timing (previously Q1 2023) and noted need for further assessment and consultation Tentative date for 3A set for Q3/Q4 Cal. 2023
4	DOEs, DER Data Hub & Registry Services, Distribution Local Network Services and DER Operational Tools	DER bundle of initiatives remain subject to trial or further policy development and design.	Subject to policy development	Removed anticipated timing (previously mid 2023) and noted subject to further policy development
5	FTA2, Scheduled Lite, SCADA Lite, and OR	Each initiative is subject to an ongoing Rules Consultation Process	Subject to rules consultation <i>Tentatively Q3/Q4 Cal. 2023</i>	Removed anticipated timing (previously late 2023) and noted subject to Rules consultation Tentative date set for Q3/Q4 Cal. 2023
6	Data Services, Bill Transparency, EV Charging Standing Data Registry, Network Visibility	Each initiative is subject to an ongoing policy development	Subject to policy development	Removed anticipated timing (previously late 2023) and noted subject to further policy development

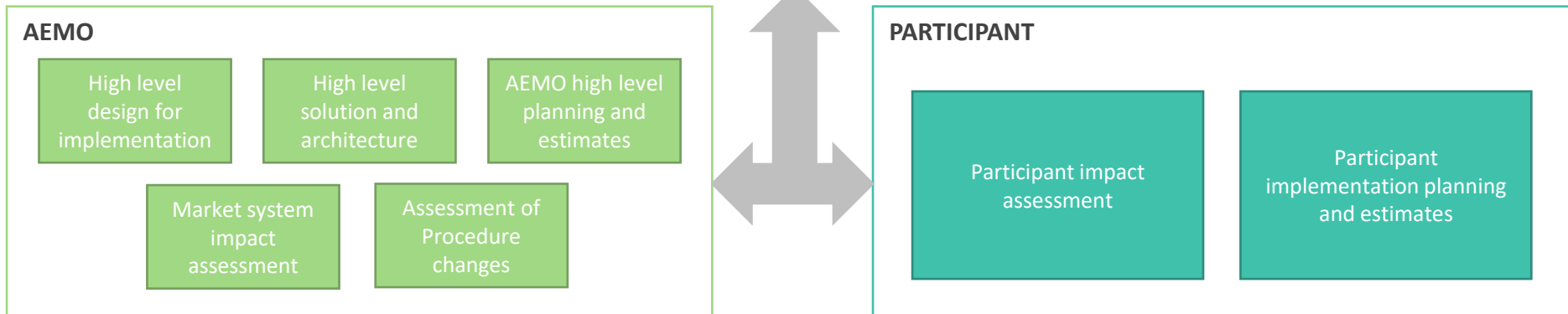
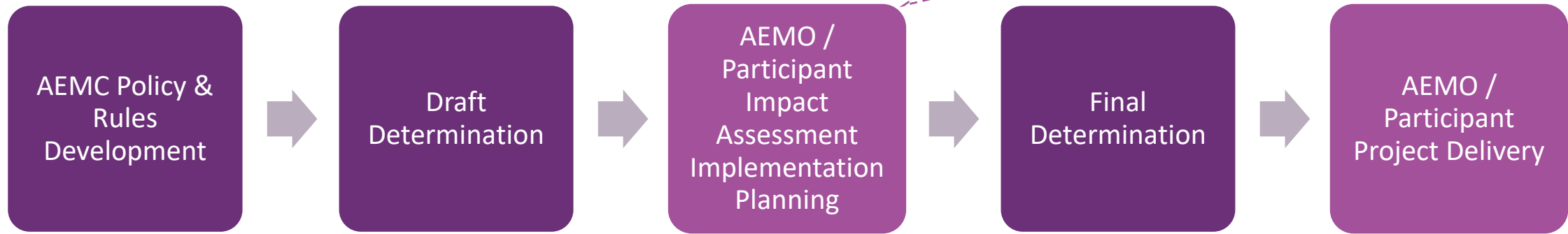
6. Setting an informed Go-Live date

Trailing the approach with OSM

Informed go-live – OSM

- The OSM initiative is trailing an ‘informed go-live process’, in conjunction with the AEMC – noting the AEMC is currently working through feedback from its draft determination.
- The objective of this process is to provide a greater level of detail and transparency to internal and external stakeholders on the project’s key activities and implementation timelines.

AEMO is in the process of developing a High Level Implementation Design (HLID). The HLID, including timeline, is based on the scope outlined in the AEMC draft determination and initial prototyping exercise discussed with stakeholders. The HLID will be published **for stakeholder comment and feedback in due course**



7. Update on progression of Foundational & Strategic initiatives (IDX, IDAM, PC)

Background – Strategic / Foundation initiatives

Pathway	Initiatives*	Description
Foundation <ul style="list-style-type: none"> Foundational dependency work to deliver an uplift to base capability on which reforms are dependent 	<ul style="list-style-type: none"> Identity Access Management (IDAM) 	<ul style="list-style-type: none"> A unified mechanism to authenticate participant users and applications when accessing AEMO services.
	<ul style="list-style-type: none"> Industry Data Exchange (IDX) 	<ul style="list-style-type: none"> Unified access to AEMO services across all markets, using modern authentication and communication protocols, facilitating a cohesive approach to industry data exchange. This will leverage IDAM
Strategic (Related) <ul style="list-style-type: none"> Strategic dependency work to effectively futureproof capabilities and scalability of systems thereby avoiding investment in systems that will become end-of-life shortly after the reforms take effect 	<ul style="list-style-type: none"> Portal Consolidation (PC) 	<ul style="list-style-type: none"> A 'single pane of glass' user experience for participants accessing all AEMO browser based services

The initiatives are at a Discovery stage and as part of the product roadmap AEMO will consult with industry, including the Reform Delivery Committee, prior to any funding decision being made

*An overview of current state and scope of these initiatives is available in Appendix A

Context to approach in 2023

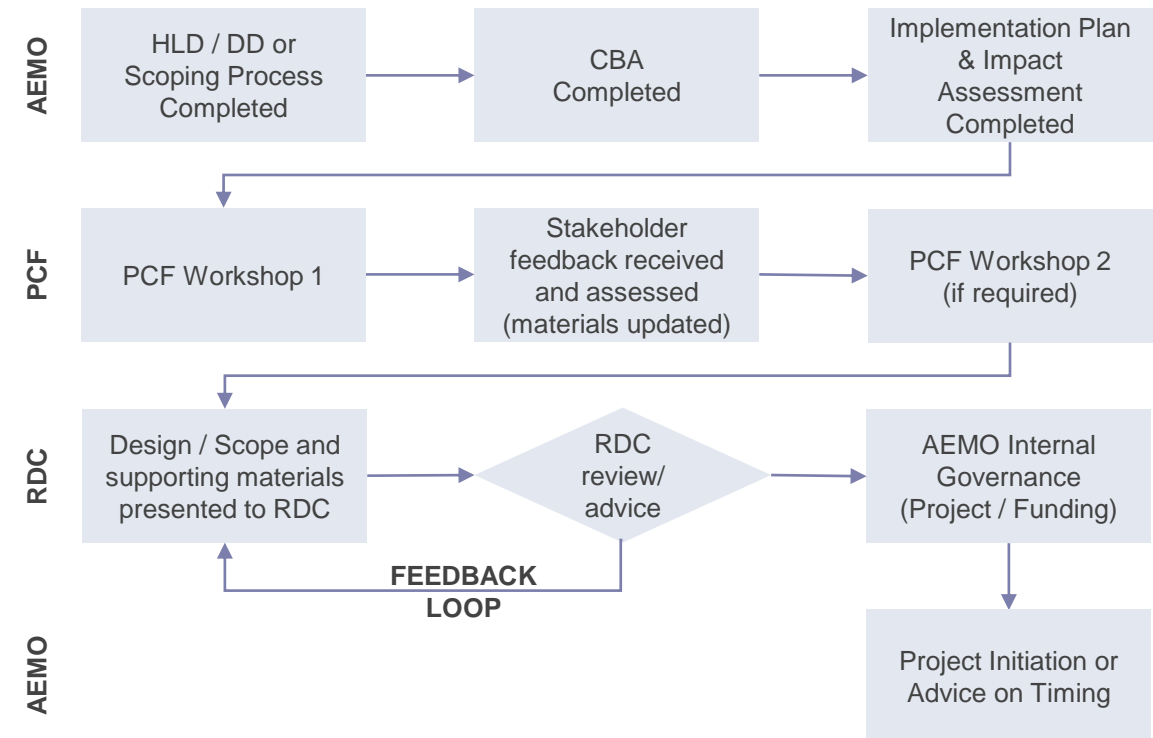
- Early feedback: upfront whole of market transition creates undesirable risk and cost.
- This consultation will assess options to deliver value along specific greenfield and brownfield paths – this might include:
 - Greenfield initiatives requiring an IDX capability (such as DER).
 - Significant reinvestment in market processes impacting IDX (such as Causer Pays).
 - Prioritised drivers (such as Cyber IDAM).

Recap: Stage gate process for Strategic/Foundation Initiatives

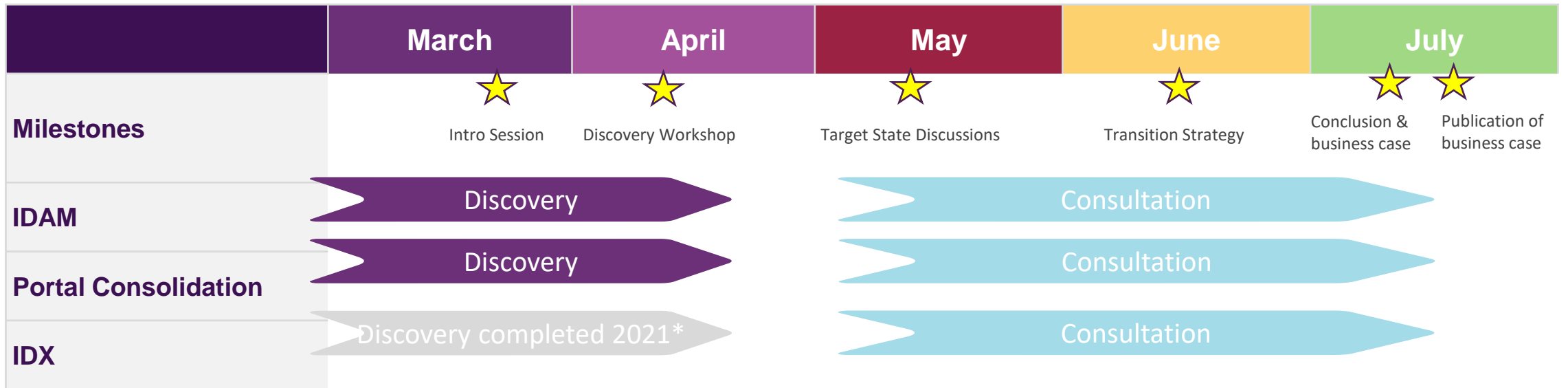
This process was discussed with the RDC in July 2022 and published with the Roadmap in September 2022

- Initiatives in this category include:
 - Identity & Data bundle
 - Dispatch Target State
 - FRC Target State
- This process provides for engagement with industry stakeholders, via the PCF, to confirm critical elements of the initiatives including:
 - High Level Design (HLD), Detailed Design (DD) or Scope
 - Implementation Plan and Impact Assessment (cost/benefit)
- Having completed this engagement, AEMO would seek **RDC advice in relation to whether/when and how** the initiative proceeds
- AEMO’s objective is for the RDC to operate as a collaborative forum on implementation, and therefore a consensus position will be sought
- RDC views will inform the AEMO internal governance process

STAGE GATE PROCESS



Discovery & consultation



AEMO intend to seek the RDC’s advice in relation to the business case including whether/when and how the initiative proceeds at the Committee meeting in August 2023. A consensus position will be sought.

*AEMO facilitated a Discovery process for the Industry Data Exchange initiative in Feb-June 2021.

8. Other business

9. Thanks and close

See you again at the following sessions:

- 3 May 2023: RDC collaborative workshop
- 24 May 2023: RDC meeting



For more information visit

aemo.com.au

Appendix A

Strategic / Foundational initiatives overview

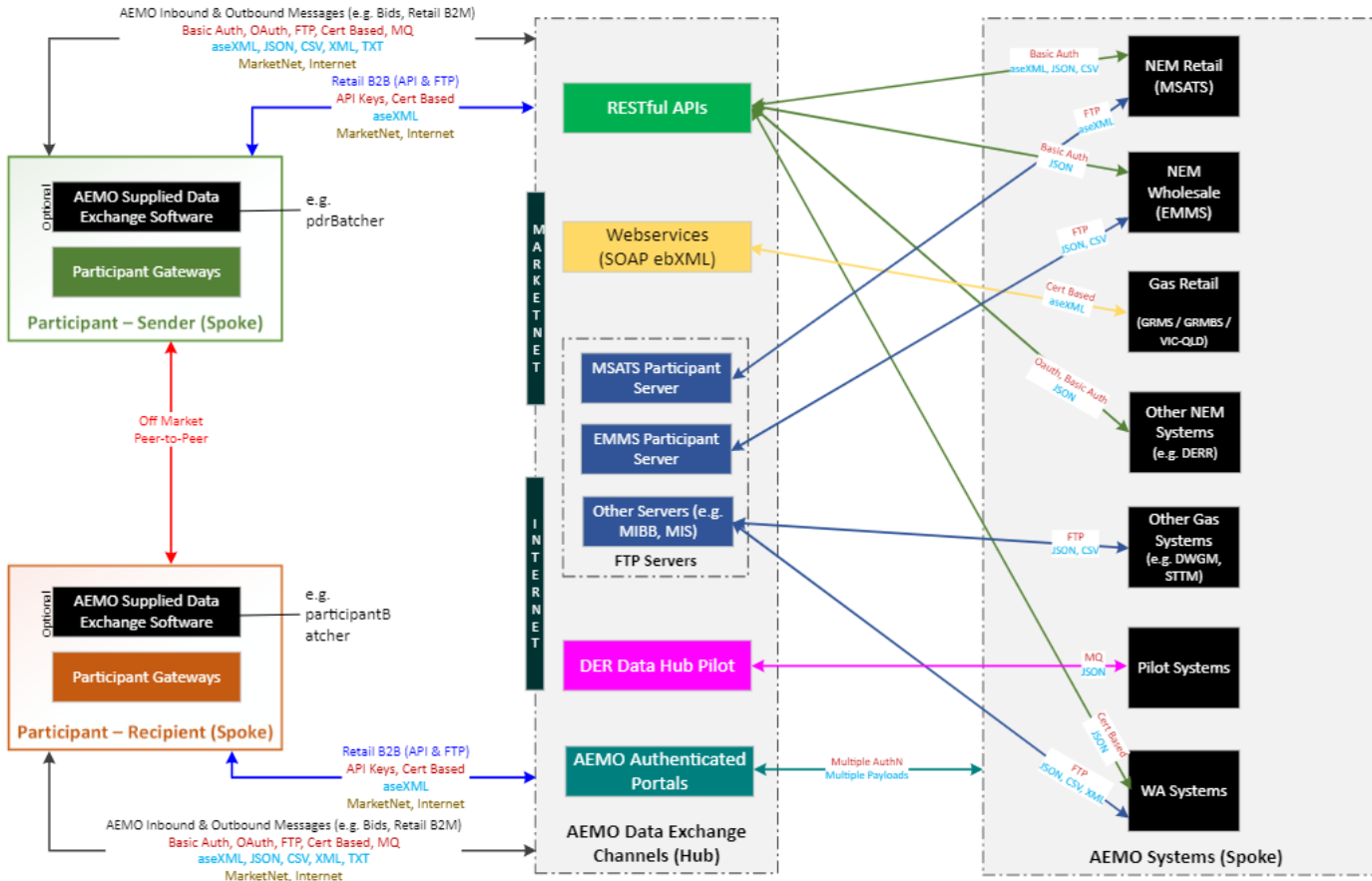
- Industry Data Exchange
- Identity and Access Management Approach
- Portal Consolidation

Industry Data Exchange

Industry Data Exchange: A unified data exchange mechanism to support exchanging data between energy stakeholders and AEMO.

Problem Statement: AEMO's existing data exchange systems have been variously acquired over the last 10-15 years, and use inconsistent standards, protocols and formats. AEMO's markets are also undergoing significant transformation, resulting in new data exchange needs. Existing data exchange mechanisms will not meet needs and will fail to comply with new industry obligations around cyber security such as the SOCI Act. AEMO is introducing new data exchange patterns without a target state and roadmap which is inhibiting participants from modernising their systems and quantifying the benefits of their investments.

IDX Context Diagram:



Following areas will be explored during the IDX feasibility phase.

In Scope	Out of Scope
<ul style="list-style-type: none"> ✓ Data Exchange between AEMO and energy stakeholders across NEM, WEM and Gas <ul style="list-style-type: none"> • Inbound and Outbound transactions • Connectivity methods • Protocols to connect to AEMO systems • Payload formats • AEMO data exchange systems that Participants connect to • Data exchange standards & patterns ✓ Interactions via all supported channels (current & future) 	<ul style="list-style-type: none"> × Control systems communications and interactions × Direct device communications and interactions

! Note: Data Exchange Scenarios, Channels, Protocols & Patterns illustrated in this slide are indicative only and not the finite list

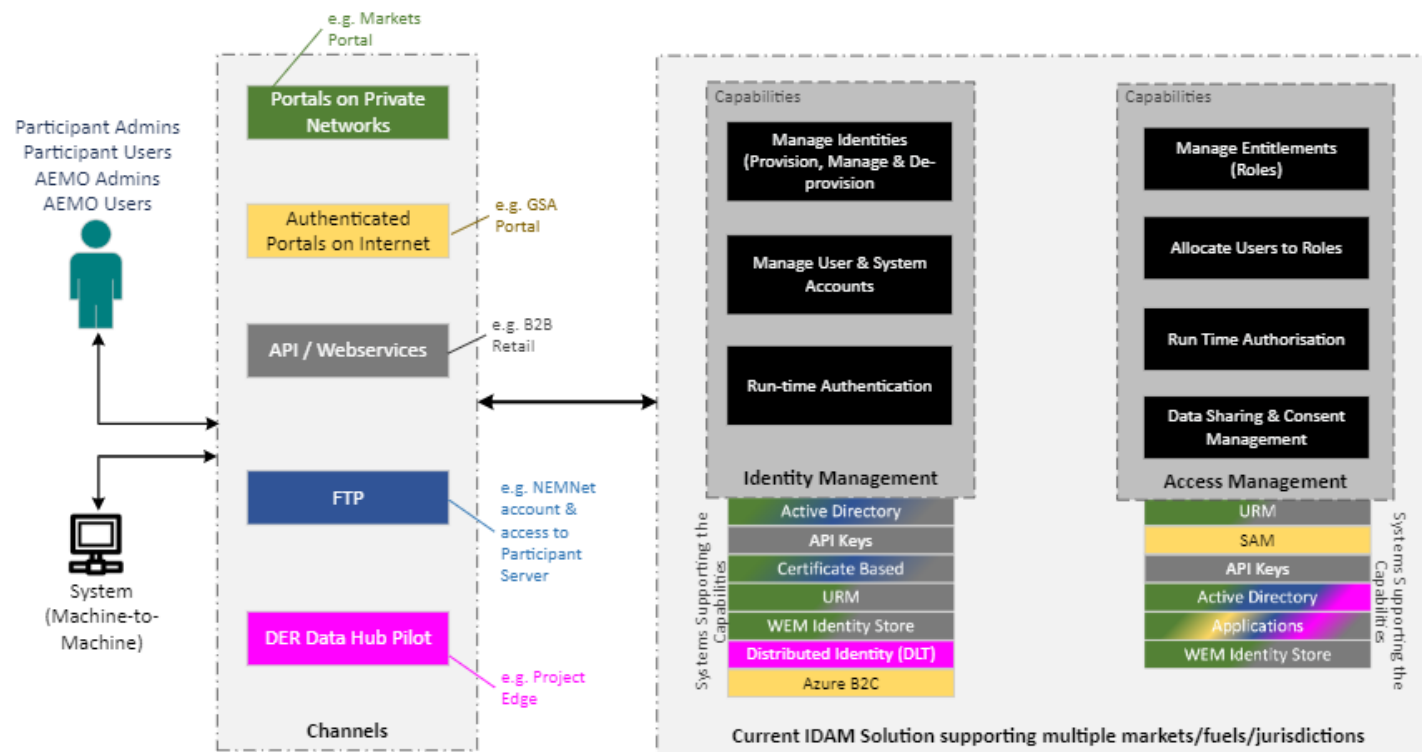
Identity and Access Management Approach


Identity and Access Management: A unified mechanism to authenticate and authorise external identity when accessing AEMO services, consolidating and improving overall cyber security controls.

Problem Statement:

AEMO's Identity and Access Management (IDAM) services are disparate, requiring users to retain multiple sets of credentials in order to access AEMO business services. The legacy IDAM services do not implement best practices in cyber security controls (e.g. multifactor authentication) and are insufficient to meet new industry obligations introduced under the SOCI Act.

IDAM Current State Context Diagram:



 Note: Channels & IDAM Stores illustrated in this slide are indicative only and not the finite list

Following areas will be explored during the IDAM feasibility phase.

In Scope	Out of Scope
<ul style="list-style-type: none"> ✓ NEM, WEM and Gas involving AEMO external interactions 	<ul style="list-style-type: none"> × Network layer security
<ul style="list-style-type: none"> ✓ External Identities including: <ul style="list-style-type: none"> - Registered Participants - Non-registered Participants - Potential Participants - Service Providers 	<ul style="list-style-type: none"> × Control systems communications / interactions × Direct device communications /interactions
<ul style="list-style-type: none"> ✓ External System Accounts Interactions via all supported channels (current & future) 	

Portal Consolidation Approach



Portal Consolidation: The aim of portal consolidation is to enable a single pane of glass experience for energy market systems. The portals framework is an enabling platform that supports energy market participants and other partners to consume AEMO browser services in a secure manner.

Problem Statement:

AEMO browser services are exposed over a disparate range of end points and require multiple sets of credentials to consume these services. This results in a suboptimal user experience for energy stakeholders. The requirement to access browser services via private networks creates technical barriers to consuming these services.

Following AEMO browser services will be explored during the Portal Consolidation feasibility phase:

In Scope	Out of Scope
<ul style="list-style-type: none"> ✓ External Authenticated Portals (accessed by Market Participants and other External Users) ✓ SharePoint Apps which are accessed by Market Participants such as ROCL 	<ul style="list-style-type: none"> × Public Un-authenticated Portals (e.g. aemo.com.au)

