

Reform Delivery Committee

29 August 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 <ul style="list-style-type: none"> • Updates to membership 		Violette Mouchaileh (AEMO)
2	10:10-10:15am	Action items from prior meetings & workshops	For noting	Peter Carruthers (AEMO)
3	10:15-10:40am	Change management and Roadmap update <ul style="list-style-type: none"> • Unlocking CER benefits through flexible trading (FTA2) • Integrating price-response resources into the NEM (Scheduled Lite) • Operating Reserve Market • DER Initiatives • Roadmap and supporting artifacts • Ask of the Committee 	Open discussion about 2025 timing Endorsement for release of updated roadmap	Lance Brooks (AEMO)
4	11:00-11:15am	Stage gate update	For noting	Lance Brooks (AEMO)
5	11:15-11:45am	Progression of Foundational & Strategic initiatives <ul style="list-style-type: none"> • Update and business case 	Open discussion	Ulrika Lindholm & Andrew Bell (AEMO)
6	11:45-11:55am	Other business <ul style="list-style-type: none"> • Executive Forum – verbal update 	Open discussion	Violette Mouchaileh (AEMO)
7	12:00 pm	Thanks and close		Violette Mouchaileh (AEMO)

2. Action Items from prior meetings & workshops

Action Items from prior meetings & workshops

RDC Meeting actions

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

#	Topic	Action	Responsible	Status
10.4.0.1	Informed Go Live	At the appropriate time, AEMO to inform the RDC of which initiative we'll seek to trial the informed go live process	AEMO	Open. Will be discussed once suitable reform identified.
10.5.0.2	Stage Gate Update	AEMO to provide an update on how and when the work on Dynamic Operating Envelopes might progress based on recent trials incl Project Edge	AEMO	Open. DER forward plan to be discussed at 1 Nov RDC workshop.
10.6.0.1	Progression of Foundational & Strategic initiatives	RDC members to provide any feedback on business case approach including what broad industry consensus may look like by COB Friday 9 June.	RDC Members	Closed. No feedback provided out of session.
10.6.0.2	Progression of Foundational & Strategic initiatives	AEMO to consider what broad industry consensus might look like and the potential for the Executive Forum to play a role in the approval process.	AEMO	Closed. Refer agenda item 5.
10.6.0.3	Progression of Foundational & Strategic initiatives	AEMO to consider RDC feedback on business case and share draft business case for discussion ahead of the August RDC meeting.	AEMO	Closed. Refer agenda item 5.
10.6.0.4	Progression of Foundational & Strategic initiatives	AEMO to share Industry pain points and benefits survey results with RDC members.	AEMO	Closed. Published on AEMO's website .
10.6.0.5	Progression of Foundational & Strategic initiatives	AEMO to consider tabling the Foundational & Strategic initiatives business case at the upcoming Executive forum.	AEMO	Closed. Briefing was provided at Exec Forum. To be discussed in this session.
9.3.0	Change Management Update & Ask of the Committee	AEMO to present at the next meeting on any lost and emerging bundling opportunities to consider when updating the Roadmap.	AEMO	Closed. Covered under item 3 of this session.

Action Items from prior meetings & workshops

RDC Workshop Actions

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

#	Topic	Action	Responsible	Status
3.6.2.1	Bundling, sequencing and prioritisation	AEMO to look at dependencies and opportunities for bundling, sequencing, and prioritisation as part of updating the Roadmap in light of further information becoming available following publication for example of the AEMC's Schedule lite consultation paper, and FTA Model 2 directions paper.	AEMO	Open. As pre formal change management process.
3.6.2.2	DOE, Data Hub & Registry Services, DER Operational Tools, DLNS	AEMO to look to summaries at the jurisdiction level for any similarities and whether industry action is required.	AEMO	Closed. DER forward plan to be discussed at 1 Nov RDC workshop.
3.6.2.3	SCADA Lite	AEMO to follow up on how realistic this timing is in light of the current intensity of development across NEM Reform.	AEMO	Closed. Monitored closely.

3. Change management and Roadmap update

Unlocking CER benefits through flexible trading

Formerly 'Flexible Trading Arrangements (Model 2)'

Candidate for informed go-live

AEMC published its Directions Paper on 3 August available [here](#)

The AEMC directions paper explores the rule change in three core areas:

- Optimising the value of CER flexibility by examining opportunities for separately identifying and managing flexible CER.
- Flexible trading of CER with multiple energy service providers at residential and/or commercial premises.
- Opportunities to improve how energy use is measured for street lighting and other street furniture (such as park BBQs).

Scope considerations

- The AEMC has indicated the original model proposed by AEMO is to be assessed in the first instance as it applies to large customers, and single FRMP for small customers
- AEMO has also proposed an alternative option as part of the rule change proposal that allows for an additional settlement point behind a consumer's primary connection point. The AEMC has indicated this will also be considered as part of the rule change consultation
- These secondary settlement points would be behind the direct and existing connection to the distribution network and primary connection point. This allows for CER flows from that additional settlement point to be subject to different metering standards and recognised in wholesale energy market settlements. This is similar to the proposal for a 'Minor Flow Energy Meter' for street lighting

Proposal: Roadmap updated to reflect change in timing for the rule change consultation. No change in assumed implementation requirements at this time

Indicative timing as per AEMC paper

- Draft determination – December 2023
- Final determination – April / May 2024

Integrating price-responsive resources into the NEM



AEMC published its Consultation Paper on 3 August available [here](#)

The paper is the first stage in the AEMC’s formal consultation process and explores AEMO’s proposed mechanism which comprises two modes:

- **Visibility mode:** this mode is designed to integrate the intentions of price-responsive resources to improve the accuracy of short-term demand and price forecasting. Participants will provide a forecast of generation and consumption called “indicative bids”.
- **Dispatch mode:** this mode is designed to integrate price-responsive resources into the NEM central dispatch and scheduling processes. Participants will be able to provide bids for their generation and load, receive and follow dispatch targets.

Scope considerations: Changes to the NER to establish the new mechanism potentially include:

- Establishing a ‘Light Scheduling Unit’ (LSU) classification
- Creating a new ‘Light Scheduling Unit Guideline’
- Creating a new ‘Zonal Aggregation Guideline’
- Creating a new incentive payment arrangement for visibility mode
- Including dispatch mode in central dispatch

Further, amendment will be require to a number of procedures including but not limited to:

- Most registration and classification documents, System Operation Procedures (including Dispatch Procedure, Pre-Dispatch procedure, Spot Market Operations, Timetable procedure, Load Forecasting procedure and ST PASA process description)

Proposal: Roadmap updated to reflect change in timing for the rule change consultation. No change in assumed implementation requirements at this time

Indicative timing as per AEMC paper

- Draft determination – December 2023
- Final determination – May 2024

Operating Reserve Market

AEMC published its *Directions Paper on 3 August* available [here](#)

The AEMC has indicated it will **not be recommending** the implementation of an Operating Reserve Market noting that while it could provide greater visibility of market participants' reserve decisions helping to manage risks, it would not offer any performance improvements relative to the current arrangements, and would also likely introduce additional costs for the market.

The AEMC has set out a new direction for this rule change consultation providing for two incremental improvements:

- development and publication of more information for the market on storage and state of charge
- procurement of 'frequency control ancillary services' (FCAS) at a regional level, or alternately limiting the amount of FCAS procured from a single region to increase the amount of FCAS procured in other regions.

The AEMC are now seeking stakeholder views on this new direction with submissions due 31 August 2023.

Proposal: Roadmap updated to reflect change in timing for the rule change consultation. Indicative implementation timeline to be replaced with placeholder until further information is made available on the incremental options

Indicative timing as per AEMC paper

- Draft determination – October 2023
- Final determination – End of 2023

DER Initiatives Update

NEM Reform Implementation Roadmap

- Dynamic Operating Envelopes
- DER Data Hub and Registry Services
- DER Operational Tools
- Distribution Local Network Services

Jurisdictional Schemes / Initiatives

- VIC – Emergency Backstop Mechanisms for Rooftop Solar
- SA – Distributed Energy Transition Roadmap (2020-25)
- Others?

ESB CER and Data End-of Program Report

The ESB's CER and Data End of Program Report is intended to show the components of the CER work program and how they fit together.¹ This will also help inform a forward workplan

Proposal: A holistic review of the DER initiatives (national and jurisdictional specific) to be completed to assess the opportunities, impacts or challenges for Industry Participants and how they may be accounted for in the Roadmap / Program

Roadmap + Supporting Artefacts

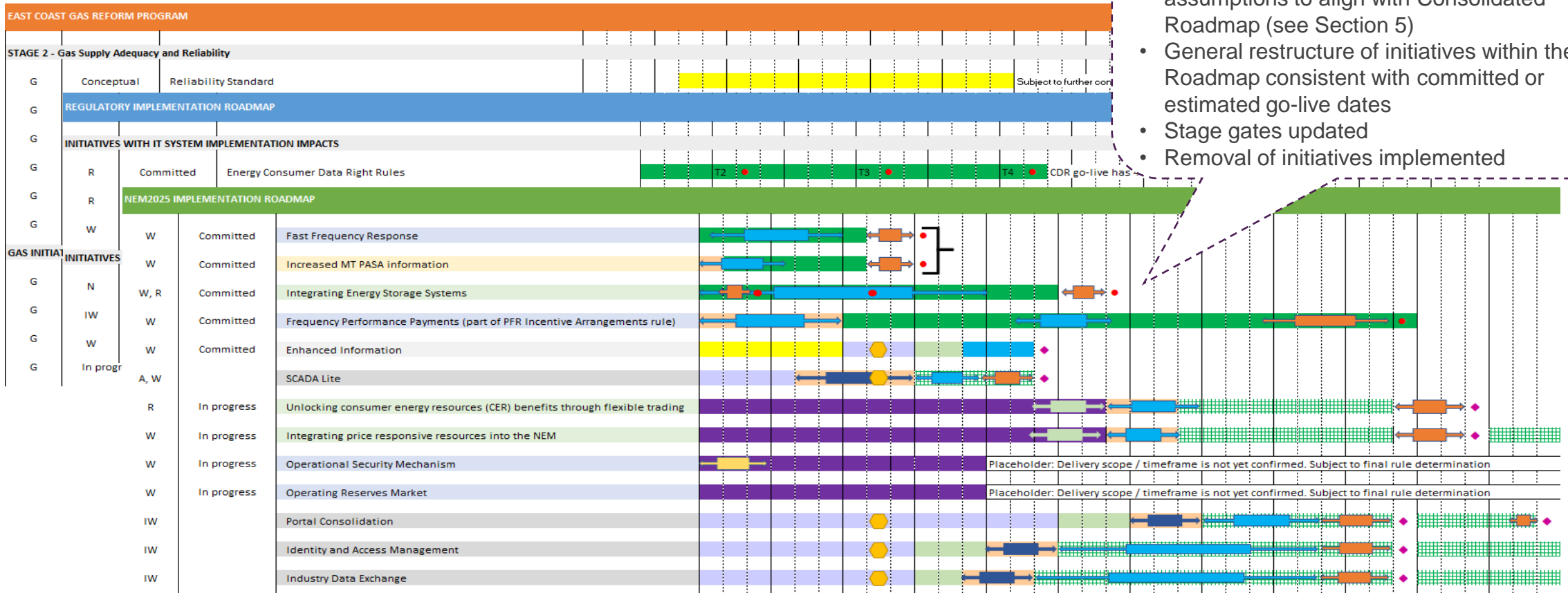
Draft Version Three

Recap: Recommendations to address material changes post August workshop

Initiative	Update Roadmap (Timing, Initiative Name, Stage Gate)	Complete Detailed Impact Assessment	Re-assess Bundle, Sequence & Prioritisation	Remove Initiative
Capacity Incentive Scheme	✓	✗	✗	✗ (To be assessed in Oct 2023)
Enhanced Information	✓	✓ (AEMO to assess initiative implementation)	✗	✗ (Subject to AEMO assessment)
Operational Security Mechanism	✓	✓ (Further details of scope required)	✓ (Further details of scope required)	✗
Data Services	✓	✓ (Subject to ESOM outcomes)	✗	✗
Congestion Relief Market & Priority Access	✓	✗	✗	✗
Scheduled Lite	✓	✗	✗	✗
SCADA Lite	✓	✗	✓ (e.g. Schedule Lite)	✗
Bill Transparency	✓	✗	✗	✗
Network Visibility	✓	✗	✗	✗
EV Supply Equipment Standing Data Register	✓	✗	✗	✗
DOE, Data Hub & Registry Services, DER Operational Tools, DLNS	✓	✗	✗	✗

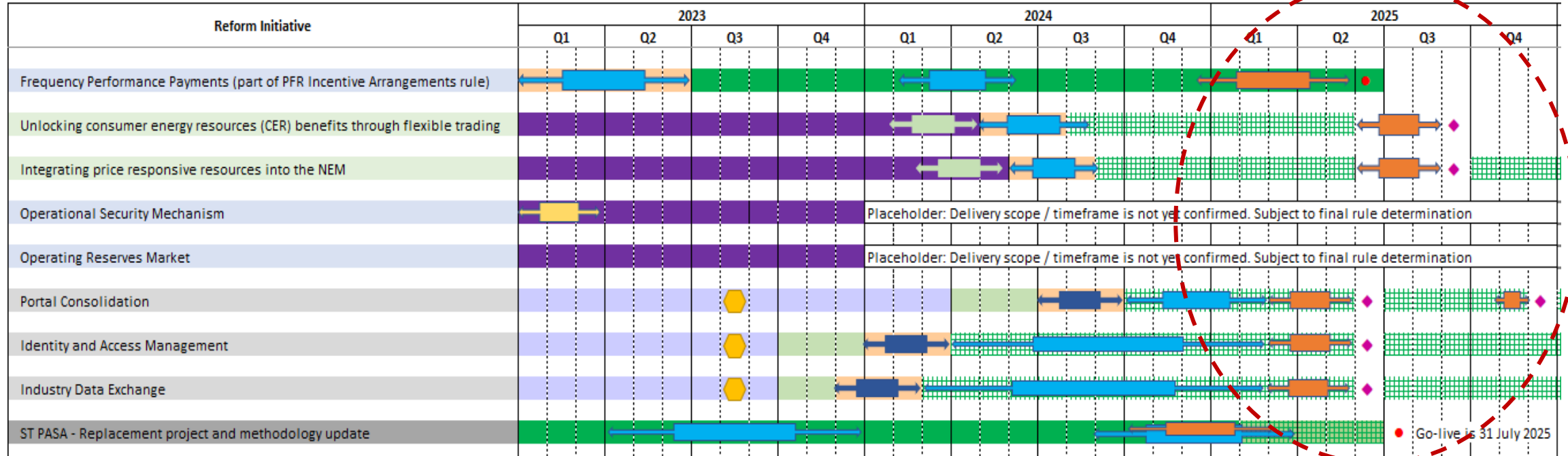
Draft NEM Reform Implementation Roadmap (V3) developed

- Various incremental / material changes as per collaborative workshop
- Updates to IDAM, IDX and PC implementation assumptions to align with Consolidated Roadmap (see Section 5)
- General restructure of initiatives within the Roadmap consistent with committed or estimated go-live dates
- Stage gates updated
- Removal of initiatives implemented



AEMO propose publishing this version of the Roadmap subject to any further feedback from RDC members and any further policy or rule consultation updates in the coming weeks (e.g. OSM Directions Paper)

2025 remains a congested delivery year despite policy / rules delays and direction changes



Key considerations:

- Timing and outcomes (e.g., scope) from the AEMC rules consultation process on key initiatives (including OSM, ORM, Unlocking CER benefits through flexible trading and Integrating price response resources into the NEM)
- Timing of AEMO foundational / strategic initiatives, as well as potential impact on future scope as a result of various reform initiative of e.g. Integrating price response resources into the NEM, EV Supply Equipment Standing Data Register, DOE, Regulatory framework for metering services (refer to Section 5)
- Ongoing assessment of bundling, sequencing and prioritisation opportunities

Several initiatives are close to final policy / rules change outcomes

Reform Initiative	2023				2024				2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Operational Security Mechanism	Placeholder: Delivery scope / timeframe is not yet confirmed. Subject to final rule determination				Placeholder: Delivery scope / timeframe is not yet confirmed. Subject to final rule determination				Placeholder: Delivery scope / timeframe is not yet confirmed. Subject to final rule determination			
Operating Reserves Market	Placeholder: Delivery scope / timeframe is not yet confirmed. Subject to final rule determination				Placeholder: Delivery scope / timeframe is not yet confirmed. Subject to final rule determination				Placeholder: Delivery scope / timeframe is not yet confirmed. Subject to final rule determination			
Capacity Investment Scheme	Placeholder: Delivery scope / timeframe subject to consultation and final tender guidelines				Placeholder: Delivery scope / timeframe subject to consultation and final tender guidelines				Placeholder: Delivery scope / timeframe subject to consultation and final tender guidelines			
Congestion Relief Market & Priority Access Model	Placeholder: Delivery timeframe is not yet known. Subject to final policy design / rule change proposal from the E				Placeholder: Delivery timeframe is not yet known. Subject to final policy design / rule change proposal from the E				Placeholder: Delivery timeframe is not yet known. Subject to final policy design / rule change proposal from the E			
Data Services	Includes various stages of stakeholder engagement and public consultation, issues paper, draft options paper, and				Includes various stages of stakeholder engagement and public consultation, issues paper, draft options paper, and				Includes various stages of stakeholder engagement and public consultation, issues paper, draft options paper, and			
Electric Vehicles Supply Equipment Standing Data Register	Includes various stages of stakeholder engagement and				Includes various stages of stakeholder engagement and				Includes various stages of stakeholder engagement and			

Key considerations:

- Timing for implementation of these initiatives could add to an already congested delivery period for AEMO and participants, subject to final policy / regulatory outcomes and scope
- For example, OSM and OR in their current direction, along with CRM & PA would all necessitate IT system and business process changes for both AEMO and participants, albeit to a smaller degree in the case of OSM and OR
- While CIS tender guidelines are to be released October 2023 following consultation, the current policy direction for the CIS it appears unlikely a significant industry wide investment in IT systems or business processes will be required under the NEM Reform Program
- Not all participants will be equally impacted by all initiatives

Impacts on bundling, sequencing and prioritisation

APRIL 2023 UPDATE

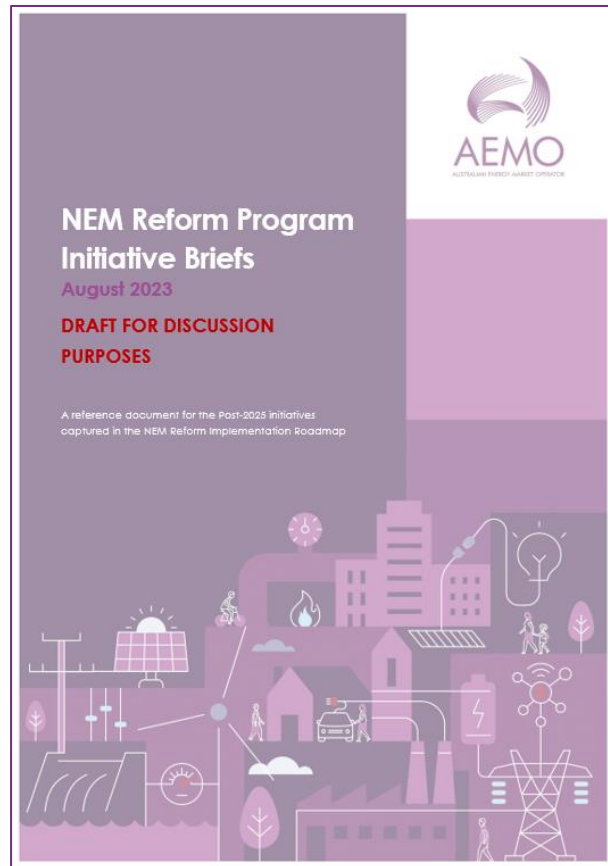
- No significant opportunities lost
- Further consideration of bundling, sequencing and prioritisation required in light of a congested 2025 delivery year
 - Agreed with RDC, this assessment is to be completed at a later date owing to the number of initiatives still in the policy design and development or rules consultation phase
- Potential technology synergies opportunities between OSM and ST PASA Replacement project based on original OSM scope and timing. However, there were no direct dependencies
- OSM and OR Market requirements to be factored into future dispatch target state considerations given these comprises a technology uplift of AEMO backend market platform services to replace legacy technology

AUGUST 2023 UPDATE

- No significant opportunities lost owing to the fact multiple items have been pushed further out in time
- Consideration of bundling, sequencing and prioritisation required in light of a congested 2025 delivery year remains a concern
 - For example – impacts of / to implementation of AEMO foundational and strategic initiatives (IDAM, IDX and PC) to / from those reform initiatives that do reach a committed stage (e.g. Incentivising price responsive resources in the NEM)
- Several initiatives are likely to reach final policy / rules change decisions towards the end of 2023 including OSM, OR Market and CRM & PA all of which may have impacts to IT systems / business processes
- Further bundling / sequencing opportunities to be explored e.g. IDAM, IDX and DER Data Hub & Registry Services

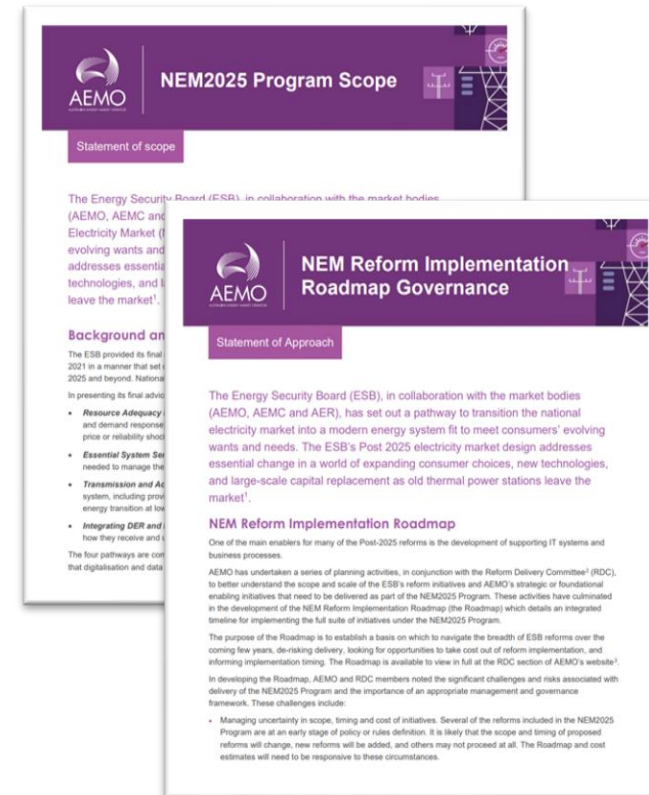
Updates to supporting artifacts

INITIATIVE BRIEFS



- Various edits to initiatives capturing incremental and material changes including for example scope updates to:
 - Operational Security Mechanism
 - Operating Reserve
 - Enhance Information
 - Congestion Relief Market and Priority Access
 - Data Services
- Renaming of FTA and Scheduled Lite initiatives to align with AEMC rules consultations

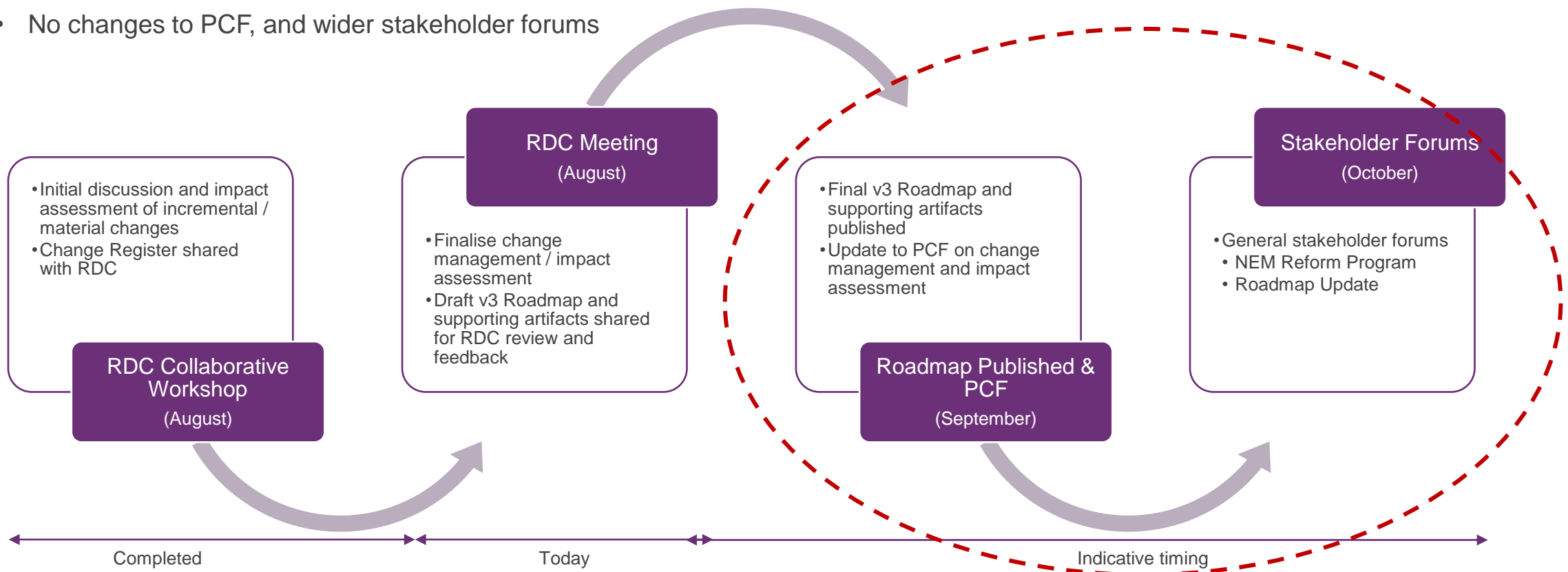
PROGRAM SCOPE & GOVERNANCE



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

Keeping the NEM Reform Implementation Roadmap up to date

- AEMO has reassessed its proposed schedule, and could bring forward publication of the Roadmap and supporting artefacts to September (previously October). This option removes potential redundancy in timeline and better aligns with scheduled meetings of the RDC and will be subject to any key developments in early September (e.g. OSM directions paper)
- No changes to PCF, and wider stakeholder forums



Ask of the Committee

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

- As per prior updates to the Roadmap and supporting artefacts AEMO's intention currently is to include the 'Ask of the Committee' as part of next publication of the Roadmap and supporting materials

In collaboration on the revised NEM Reform Implementation Roadmap, AEMO and RDC members worked through the change management process in accordance with the set NEM Reform Program governance arrangements. As part of this process RDC members:

- Recognised the continued 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 Unlocking consumer energy resources (CER) benefits through flexible trading, Integrating price responsive resources into the NEM, Operational Security Mechanism and Operating Reserve Market;
- 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
- Noted the inclusion of implementation assumptions for AEMO's foundational and strategic initiatives, namely Identity and Access Management, Industry Data Exchange and Portal Consolidation are subject to final a business case, as well as ongoing assessment to account for future reform initiatives;
- Agreed the Roadmap reflects the NEM Reform Program's implementation requirements at this time based on publicly available information and recognising the above uncertainties and challenges.

4. Stage gate update

Summary of changes

- **Operational Security Mechanism** – Pushed out to Q1 2024 to align with rule change consultation
- **Enhanced Information** – Brought forward to Q3 2023 to align with policy decisions. However, this is unlikely to be required subject to AEMO finalising its planning activities with delivery of this initiatives to be incorporated into BAU activities
- **Unlocking CER benefits through flexible trading** – Pushed out to Q1 2024 to align with rule change consultation
- **Incentivising price responsive resources in the NEM** – Pushed out to Q1 2024 to align with rule change consultation
- **EV Supply Equipment Standing Data Register** – Pushed out to Q3 2024 to align with potential future rule change consultation
- **Identity and Access Management, Industry Data Exchange and Portal Consolidation** – Pushed out to Q1 2024 to align with business case development and industry consultation
- **DER Data Hub & Registry Services** – Pushed out to Q1 2024 to align with IDAM and IDX

**Indicative Q3
2023
(Tranche 2)**

- SCADA Lite
- Data Services
- Capacity Incentive Scheme*
- Enhanced Information

**Indicative Q1
2024
(Tranche 3)**

- Operational Security Mechanism
- Operating Reserve Market
- DER Data Hub & Registry Services
- Identity and Access Management
- Industry Data Exchange
- Portal Consolidation

Subject to completion of the business case for AEMO foundational and strategic initiatives (IDAM, IDX and PC)

* Subject to final policy outcomes / tender guidelines. Unlikely to be required based on current known scope.

Stage Gate – Updates

Pathway ¹	Initiatives	Q3 2022 (Completed)	Q3 2023 (TBC)	Q1 2024 (TBC)	Q3 2024 (TBC)	Q1 2025 (TBC)	Update
RAMS	Increased MT PASA information	✓					No update – Included in Tranche 1
	Capacity Incentive Scheme		✓				No update – Candidate for Q3 2023 subject to final policy design and auction process (unlikely to be required)
ESS	Fast Frequency Response	✓					No update – Included in Tranche 1
	Frequency Performance Payments	✓					No update – Included in Tranche 1
	Operational Security Mechanism	✓ (Prototyping Only)		✓			Candidate for Q1 2024 subject to scope and timing of AEMC final rule determination (previously Q3 2023)
	Operating Reserves Market			✓			No update – Candidate for Q1 2024 subject to subject to scope and timing of AEMC final rule determination
TA ²	Enhanced Information		✓				Candidate for Q3 2023 subject to detailed planning activities (previously Q1 2024)
	Congestion Relief Market & Priority Access Model	To be determined subject to policy / rules development					

¹ RAMS: Resource Adequacy Mechanisms, ESS: Essential System Services, TA: Transmission & Access reform, DER & FD: Integrating DER and Flexible Demand, DS: Data Strategy, AEMO F: AEMO Foundational, AEMO S: AEMO Strategic.

² Anticipated TA reforms will be implemented by 2027, on the condition policy / rules development is finalised in 2023

Stage Gate – Updates (continued)

Pathway ¹	Initiatives	Q3 2022 (Completed)	Q3 2023 (TBC)	Q1 2024 (TBC)	Q3 2024 (TBC)	Q1 2025 (TBC)	Update	
DER & FD	Integrating Energy Storage Systems	✓					No update – Included in Tranche 1	
	Unlocking CER benefits through flexible trading (formerly FTA m2)				✓		Candidate for Q3 2024 subject to outcome and timing of AEMC rule consultation (previously Q1 2024)	
	Incentivising price responsive resources in the NEM (formerly Scheduled Lite)				✓		Candidate for Q3 2024 subject to outcome and timing of AEMC rule consultation (previously Q1 2024)	
	Dynamic Operating Envelopes	To be determined subject to policy / rules development						No update – Ongoing policy / rules development
	Distribution Local Network Services	To be determined subject to policy / rules development						No update – Ongoing policy / rules development
	DER Data Hub & Registry Services			✓			Candidate for Q1 2024 subject to progression of IDAM and IDX (previously Q3 2023)	
	DER Operational Tools	To be determined subject to policy / rules development						No update – Ongoing policy / rules development
DS	Data Services		✓				No update – Candidate for Q3 2023 subject to policy finalisation and rules development	
	EV Supply Equipment Standing Data Register				✓		Candidate for Q3 2024 subject to policy finalisation and rules development (previously Q3 2023)	

Stage Gate – Updates (continued)

Pathway ¹	Initiatives	Q3 2022 (Completed)	Q3 2023 (TBC)	Q1 2024 (TBC)	Q3 2024 (TBC)	Q1 2025 (TBC)	Update
DS (cont'd)	Bill Transparency	To be determined subject to policy / rules development					No update – ongoing policy / rules development
	Network Visibility	To be determined subject to policy / rules development					No update – ongoing policy / rules development
AEMO F	Identity and Access Management			✓			Candidate for Q1 2024 subject to business case development and industry consultation (previously Q3 2023)
	Industry Data Exchange			✓			Candidate for Q1 2024 subject to business case development and industry consultation (previously Q3 2023)
	SCADA Lite		✓				No update – Candidate for Q3 2023 subject to established work plans
AEMO S	Portal Consolidation			✓			Candidate for Q1 2024 subject to business case development and industry consultation (previously Q3 2023)
	Consolidated Master Data Repository	To be determined subject to AEMO Future State Architecture assessment					No update – subject to AEMO FSA assessment
	FRC Target State	To be determined subject to AEMO Future State Architecture assessment					No update – subject to AEMO FSA assessment
	Dispatch, Bids & Offers and Constraint Target States	✓ (Tactical uplift only)					Tactical Uplift included in Tranche 1

5. Progression of Foundational & Strategic initiatives (IDX, IDAM, PC)

Update and business case

Contents



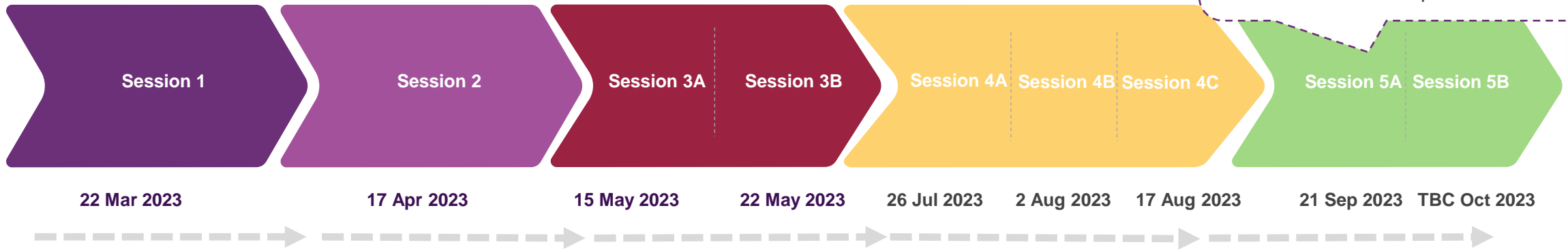
- Update
 - Process with industry
 - IDAM & Portal Consolidation sentiment
 - IDX investment phasing
- Business case
 - Case for change
 - Direction of travel
 - Business case process

Process to date with industry

Updated since circulation to the RDC, V.2 to be shared after the meeting

- Phase four concluded with industry*.
- Industry workshops on business case to commence **on 21 September**.

Note that date for business case workshop 5A moved to **21 September**. Timing for workshop 5B to be informed by 5A workshop outcomes.



Session	Introduction – IDX, IDAM & PC	Discovery Workshops – IDAM and PC	Target State Discussion	Transition Strategy	Conclusions and Business Case
Agenda	<ul style="list-style-type: none"> • Introduce initiatives • Outline workshop plan 	<ul style="list-style-type: none"> • Pain points and benefits • Survey 	<ul style="list-style-type: none"> • Concept walkthrough • Survey 	<ul style="list-style-type: none"> • Transition Strategy • Impacts & Benefits • Survey 	<ul style="list-style-type: none"> • Walkthrough of draft • Assessment and completion

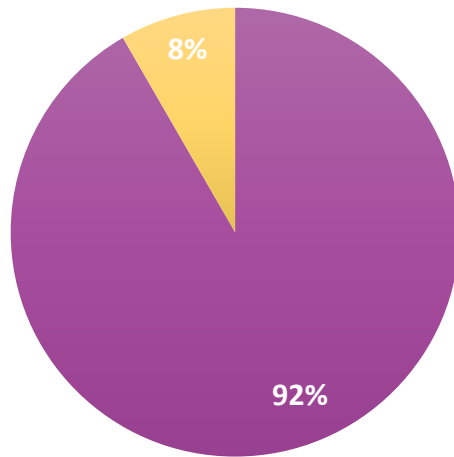
***Published information and materials:**

- [Target state](#) – published 10 July
- [Target state feedback summary](#)
- Transition strategy – draft shared with focus group 18 July (final expected published end of August)
- Focus Group webpage: <https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/nem-reform-foundational-and-strategic-initiatives-focus-group>

IDAM & Portal Consolidation sentiment

IDAM

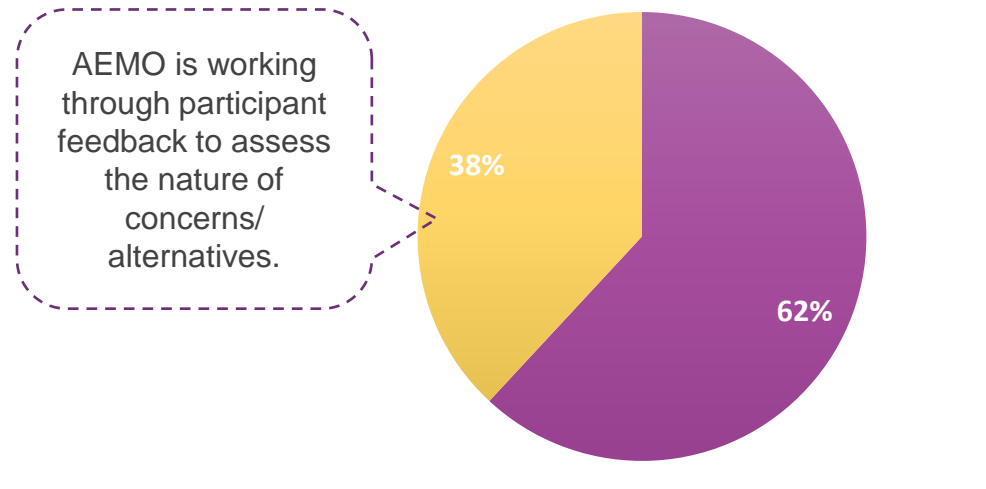
Are you aligned with the key principles and Transition tranches and sequencing for IDAM?



■ Yes% ■ No%

Portal Consolidation (in progress)

Are you aligned with the key principles, Transition strategy and Sequencing for Portal Consolidation initiative?

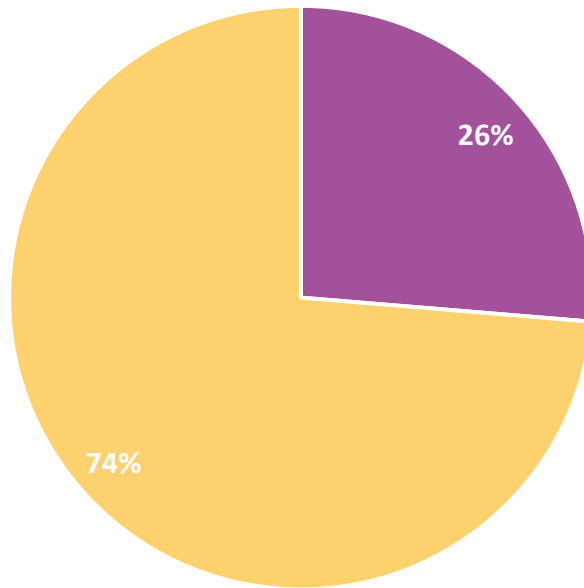


■ YES ■ NO

- A participant alignment check was done with the focus group, indicating a strong majority alignment on IDAM.
- Results from in-session polls with industry participants in transition strategy discussion 26 July and 2 August.
- Consolidated to show 1 organisation, 1 vote.

- A participant alignment check was done with the focus group, indicating a smaller majority alignment for Portal Consolidation.
- Results from in-session polls with industry participants in transition strategy discussion 2 August and 17 August.
- Consolidated to show 1 organisation, 1 vote. Note this is initial result; AEMO seeking clarification from participants.

IDX investment phasing (in progress)

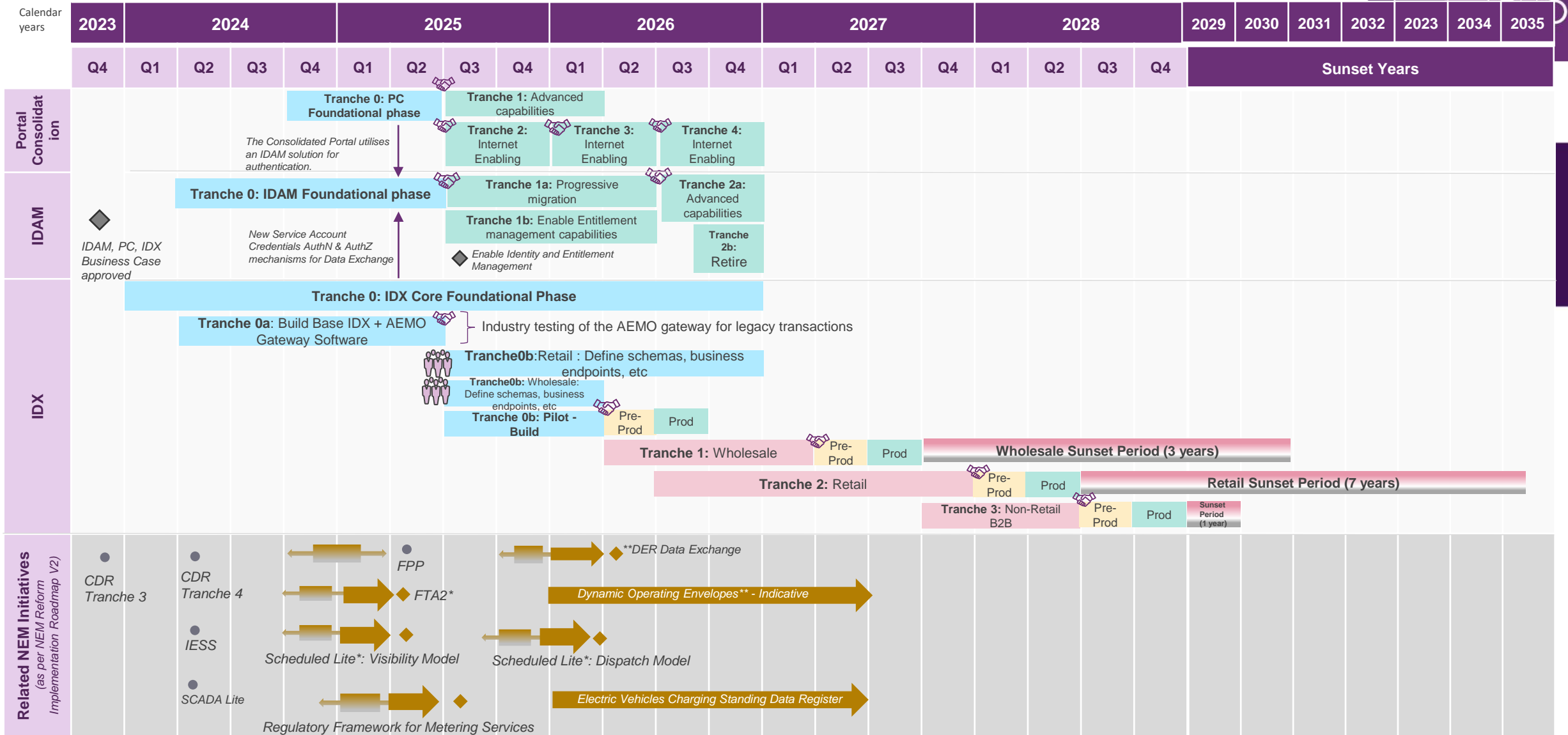


- Option 1: Package up all of IDAM and all of PC and Tranche 0 of IDX
- Option 2: Package up all of IDAM and all of PC and all of IDX

Workshop 4C outcomes:

- IDAM and PC received identified industry support for all tranches to be included in the first investment phase.
- Two packaging options for IDX investment phasing were assessed:
 - Option 1 only the foundational tranche required for new NEM reforms
 - Option 2 both the foundational tranche for new NEM reforms as well as tranches for NEM Wholesale and NEM Retail existing business services
- Participants in attendance identified a preference for investment and planning certainty, noting Option 2 provides significant flexibility for 'opt in' participant defined transition
- Participants who missed the poll have been asked to submit their preference to ensure all parties are able to contribute to establishing the direction of industry phasing.
- Results have been consolidated to provide one vote per organisation. AEMO seeking clarification from one participant whose representatives provided divergent views.

Consolidated Strawman Roadmap (in collaboration with the Industry)



Foundational Tranches - based on the assumed timeline | IDX Tranche Build | Industry Testing | T3A Milestone | **New Service | Working group | Committed effective date | Estimated effective date | Industry testing and trials

* Indicative timeline likely to be pushed out from what is assumed within V2 NEM Reform Roadmap

Timelines for the related NEM Reforms have been taken from V2 of NEM Reform Implementation Roadmap

Case for change



Reactive & Fragmented Technology

Platforms were established independently across NEM services utilising multiple now aged technologies which are both highly customised and nearing end of life.



Evolving Market Needs




Market change continues with new Consumer needs represented by Energy Transition and other initiatives requiring new market services to be deployed.



Regulatory Requirements

Legislative reforms such as SOCI continue to evolve to manage the security and resiliency of Australia's critical infrastructure.

Key Challenges

1.  **Fragmented Industry Data Exchange**
Current protocols lack support for evolving services, drive increase tactical spend to support change, maintenance cost, whilst reducing agility to adapt.
2.  **Aged Identity and Authorisation Platform**
Security posture must be strengthened to address susceptibility to cyber-attacks by state and cyber criminals and provide support for new regulatory obligations.
3.  **Inconsistent Portal Services**
Multiple distinct Portals offer inconsistent user experience, require multiple credentials to access services and do not provide a foundation to support new services.



Security Vulnerability on Critical Infrastructure

The inexorable march of technological advancement underscores the need for heightened vigilance. Security vulnerabilities are on the rise, and critical infrastructure remains a prime target for cyber criminals. It is imperative to adopt proactive measures to protect Australia's energy services and uphold national security.

Business Case Options

Baseline



Continue past approach

Extend the life of existing capability

- Increasing cost and risk with extending ageing technologies.
- Multiple existing platforms all requiring discreet enhancement to address security risks and compliance requirements.
- Lack of suitable foundation to support new services.
- Underlying market platforms, protocols and payload models nearing end of life and will ultimately need to be replaced.

Proposed



Phased

Phased Approach to establish foundational capability for greenfields requirements and address priority (industry defined) legacy areas

- A phased approach, with an initial investment only to address priority areas where critical deficiency/improvement is agreed.
- Set out an overall roadmap but only approve investment for initial phase.
- Transitional support capability over an extended sunset timeframe provides participants the flexibility to determine their own investment timing and sequence.
- Establish foundational capability for greenfields areas such as DER.

Discounted



Big Bang

Whole of market(s) uplift

- **Big Bang, full transition** implementation approach. Feedback from participants provided a clear indication that the industry had no appetite for a change that is high cost, too disruptive and high risk.

Direction of travel (consultation is in progress)

Industry proposed scope

IDAM: Replace legacy IDAM capability to address security risk and compliance. Establish target state as a pre-requisite to ensure foundation capability available.

PC: Portal framework established to support greenfields requirements, Participant user management (IDAM dependency) provided. Updates to existing Portal services where essential to integrate with new IDAM framework. Existing AEMO portal services identified as appropriate for internet enablement progressively migrated to the new Portal framework. Updated documentation and training material for services transitioned to the common framework and user experience.

IDX: Establishment of centralized AEMO data exchange capability to support target state protocols and update to AEMO gateway software. This will provide support for greenfields requirements (e.g. DER).



Ask of Participants

IDAM:

- Support consultation and industry testing
- Elect for progressive user migration or bulk migration
- Optional integration of advanced user management – federated identity (requires Participant side IT changes).

PC:

- Industry testing and training for Participant Administrators.
- Industry testing, update to bookmarks to AEMO services to reference new portal, training for updated services.

IDX:

- Contribute to development of technical specifications for new protocols
- Contribute to definition of AEMO gateway software requirements
- Implementation of capability expected to align to dependent NEM reforms.

Scope under assessment

IDX: Legacy NEM Retail and Wholesale Business Services enabled under target state protocols and payloads, integrated with IDAM. Existing legacy protocols and payloads remain available with AEMO centralized backwards compatibility services for duration of sunset period (to be defined by industry). Extent of industry support to be discussed at 17 August workshop.



Ask of Participants (if this proceeds)

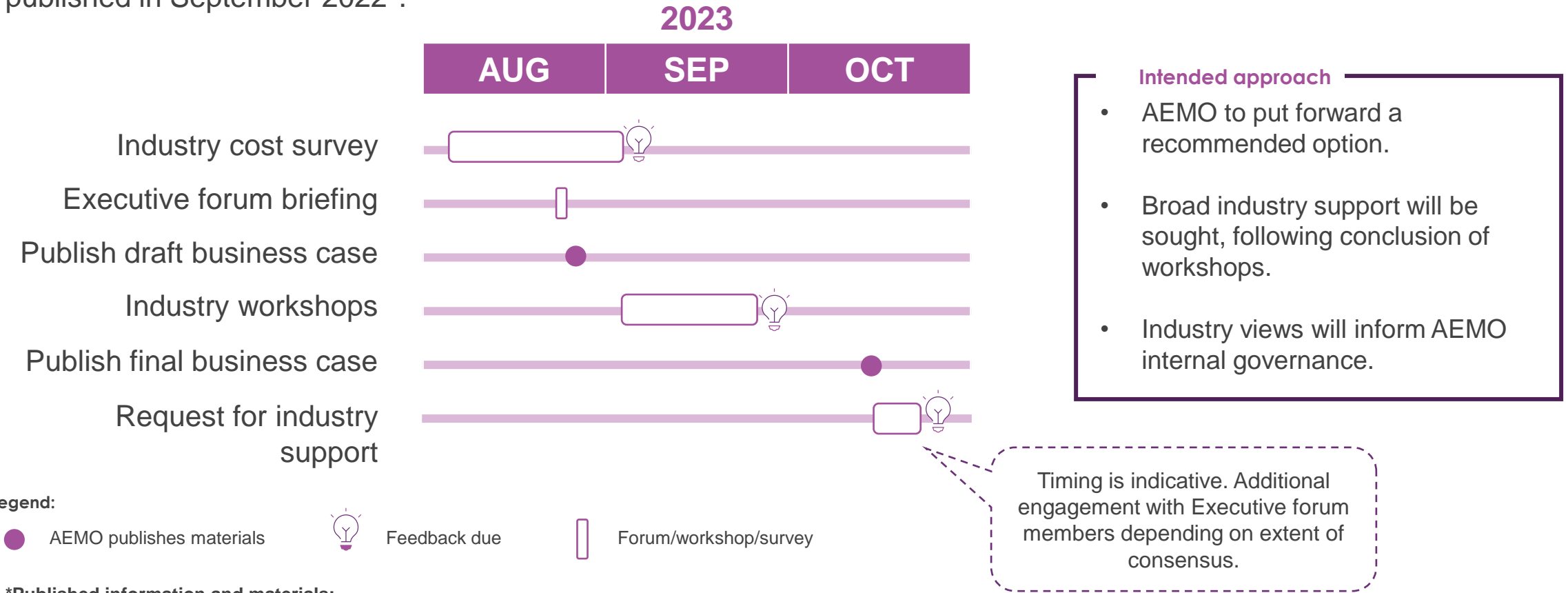
IDX:

- Contribute to development of updated NEM Retail and Wholesale procedures and technical specifications
- Industry testing and optional participation in Pilot phase
- Participants each define their own optimal sequence and timing to opt-in transition of legacy NEM Retail and Wholesale business services over a multi-year period. IT changes expected to span Gateway and integration capabilities potentially through to back-end systems involved in market interaction.

Business case process

Timeline updated since circulation to the RDC, V.2 to be shared after the meeting

This process is guided by the NEM Reform investment governance framework, agreed with the RDC and published in September 2022*.



Legend:

- AEMO publishes materials
- Feedback due
- Forum/workshop/survey

*Published information and materials:
<https://aemo.com.au/en/initiatives/major-programs/nem-reform-implementation-roadmap>

Next steps

- RDC members to provide any feedback on:
 - Case for change narrative
 - Direction of travel
 - Business case process
- AEMO to continue development of business case through consultation with technical and business focus groups

7. Other business

Executive Forum



Verbal update

8. Thanks and close

See you again at the following sessions:

- 1 November 2023: RDC collaborative workshop
- 28 November 2023: RDC meeting



For more information visit

aemo.com.au

Appendix A

AEMO Competition Law Meeting Protocol

AEMO Competition Law Meeting Protocol

- AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO, all participants agree to adhere to the CCA at all times and to comply with appropriate protocols where required to do so.
- AEMO has developed meeting protocols to support compliance with the CCA in working groups and other forums with energy stakeholders. Before attending, participants should confirm the application of the appropriate meeting protocol.
- To access the full protocol at AEMO's website, visit: <https://aemo.com.au/en/consultations/industry-forums-and-working-groups>