

NEM Reform Program Consultative Forum

Meeting #20
10 July 2024



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 and present.**

1. Welcome

Agenda

#	Time	Topic	Presenter
1	1:00-1:05pm	Welcome	<ul style="list-style-type: none"> Chris Muffett
2	1:05-1:10pm	Actions & Feedback from Previous Meeting	<ul style="list-style-type: none"> Chris Muffett
3	1:10-1:25pm	Program & Release Update <ul style="list-style-type: none"> Program Status 	<ul style="list-style-type: none"> Rowena Leung
4	1:25-1:40pm	Spotlight <ul style="list-style-type: none"> Stand Alone Power Systems (SAPS) -Post Implementation Review 	<ul style="list-style-type: none"> Lance Brooks
5	1:40-2:20pm	NEM Reform Initiative Updates <ul style="list-style-type: none"> Retail Market Improvements (RMI) SCADA Lite Frequency Performance Payments (FPP) Metering Services Review (MSR) Enhanced Reserve Information (ERI) Improving Security frameworks (ISF) Market Interface Technology Enhancement 	<ul style="list-style-type: none"> Blaine Miner Gareth Morrah Oliver Derum Justin Stute Oliver Derum Carla Ziser Blaine Miner

#	Time	Topic	Presenter
6	2:20-2:35pm	NEM Reform – Forward Plan <ul style="list-style-type: none"> Unlocking CER Benefits through Flexible Trading ST PASA Recall Time Integrating price-responsive resources into the NEM (IPRR) Project Energy Connect Market Integration (PEC-MI) 	<ul style="list-style-type: none"> Justin Stute Nicole Nsair/Chris Muffett Luke Barlow Nicole Nsair/Chris Muffett
7	2:35-2:55pm	NEM Reform Industry Risk Register	<ul style="list-style-type: none"> Dave Reynolds
9	N/A	NEM Reform Stakeholder Update <ul style="list-style-type: none"> Upcoming Engagements 	<ul style="list-style-type: none"> For noting
10	2:55-3:00pm	General Questions and Other Business	<ul style="list-style-type: none"> Chris Muffett

Appendix A:
Competition law meeting protocol

“Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of compiling minutes. By attending the meeting, you consent to AEMO recording the meeting and using the record for this purpose. No other recording of the meeting is permitted”

2. Actions & Feedback from Previous Meeting

Actions

(Item = Meeting # – Agenda # – Reference)

Item	Topic	Action	Responsible	Status
19.2.0.1	ST PASA	AEMO to communicate to industry next steps regarding the implementation of ST PASA Option 2.	AEMO	Closed
19.6.0.1	Unlocking CER Benefits through Flexible Trading	AEMO to reach out to Origin Energy regarding timing for the Unlocking CER Benefits through Flexible Trading HLIA.	AEMO	Closed

3. Program & Release Update

Program Update

Current progress:

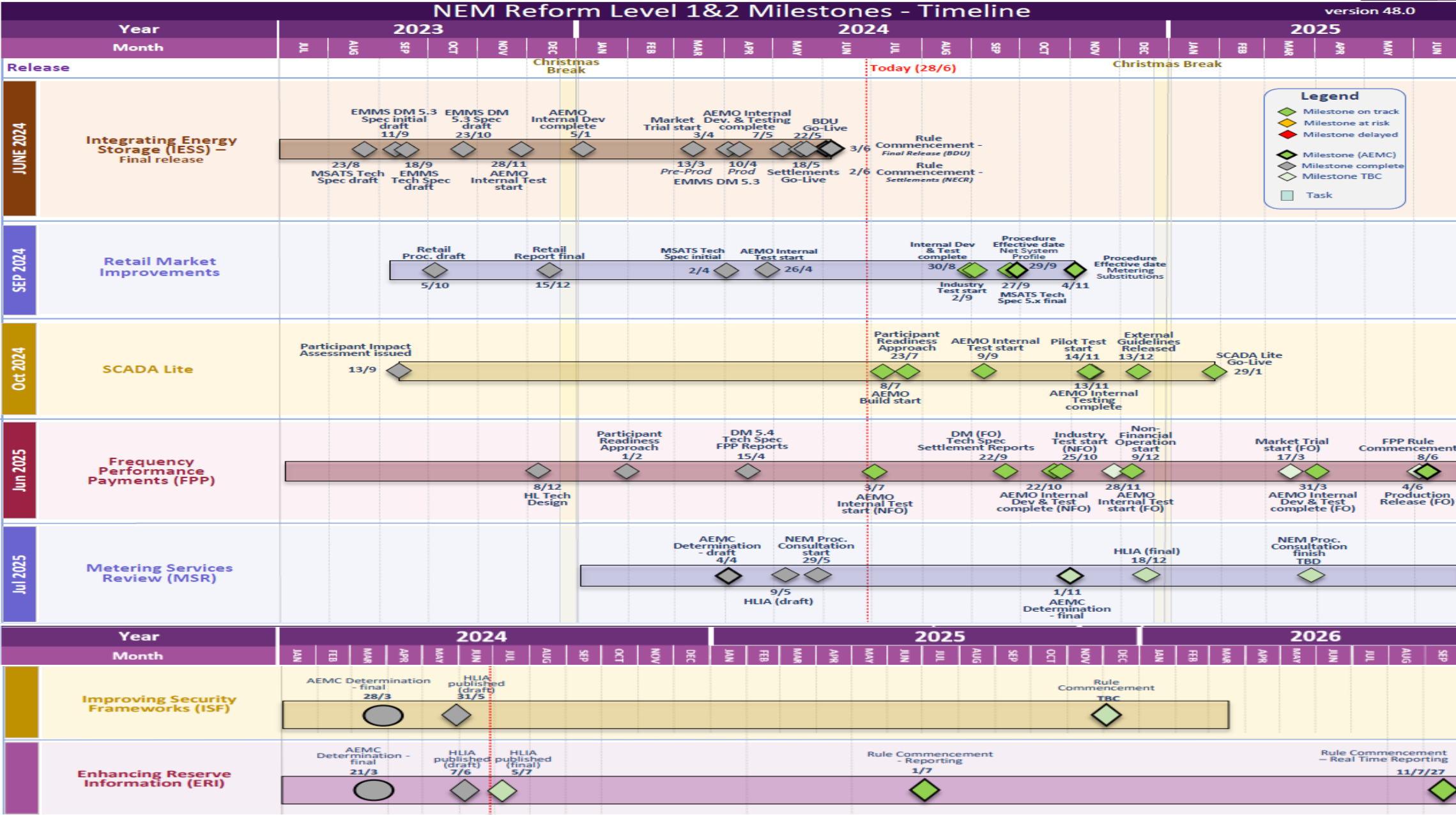
- Overall program is progressing well.

Key areas receiving management attention:

- **SCADA Lite:** AEMO have a revised re-baselined plan and committed date.
- **FPP:** Identification of additional challenges necessitate internal re-planning.

Commencement	Initiatives	Previous Status	Current Status	Key Points	Impacted Stakeholders
OCT-24	SCADA Lite			Project Delivery timelines have been re-baselined to accommodate changes to SOCI act obligations subject to internal approval.	DRSP
SEP-24 / NOV-24	Retail Market Improvements (RMI)			Scope and Procedure effective dates associated to the NSLP change in methodology and changes to Metering Substitutions and Reason Code have been confirmed. Tech Specs update has been issued. Project remains on-track.	MC, MDP, FRMP, LNSP
DEC-24 & JUN-25	Frequency Performance Payments (FPP)			AEMO have performed a replanning exercise across our internal functionality following the identification of additional challenges. The revised plan is expected to be locked in shortly. The schedule for industry test and NFO commencement remains on track.	Generators, Market Customers
TBC	Metering Service review (MSR)			AEMO to reassess consultation timelines and advise industry of an updated plan following the AEMC announcement to push the publication date for the final determination to 28 November 2024.	MC, MP, MDP, FRMP, DNSP
JUL-25	Enhanced Reserve Information (ERI)			Project establishment and participant engagement planning underway for Enhanced Reserve Information. Indicative timelines drafted in addition to a Draft HLIA published 7 June.	Generators, grid-scale batteries
Multiple effective dates	Improving Security Frameworks (ISF)			Project establishment and participant engagement planning underway for Improving Security Frameworks. Indicative timelines drafted in addition to a Draft HLIA published 31 May.	Generators, Integrated Resource Providers, other security service providers
TBC	Market Interface Technology Enhancement	N/A	N/A	The Foundational and Strategic (FaSI) draft Business Case has received internal approval from AEMO's Investment committee to proceed with planning for IDAM, IDX and PC Implementation. AEMO to develop Draft implementation approach(es) and participant engagement approach for industry input.	All current and intending Participants

NEM Reform Level 1&2 Milestones PoaP



4. Spotlight

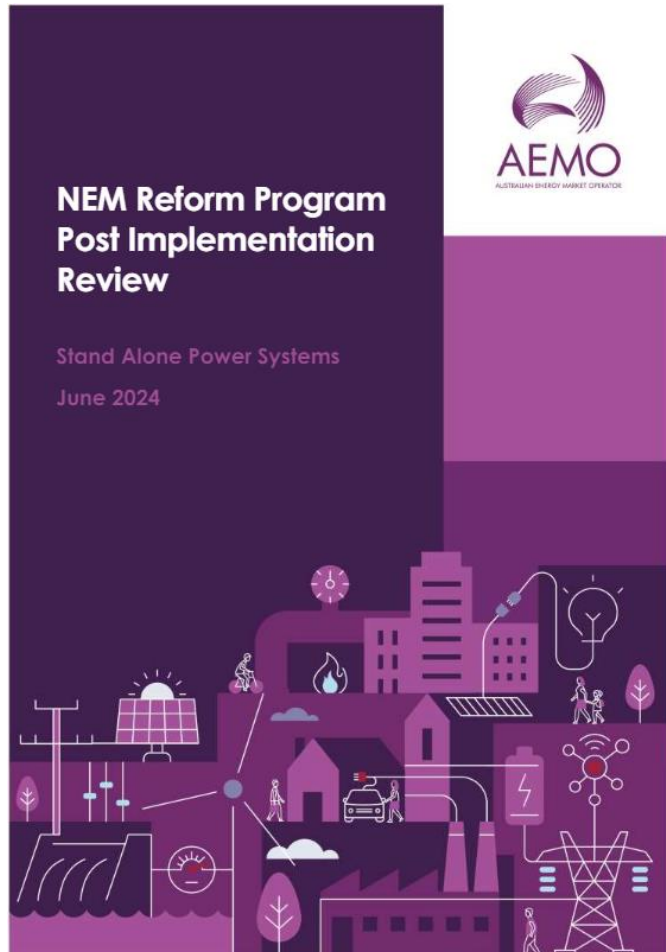
Stand Alone Power Systems (SAPS)

Post Implementation Review

Lance Brooks

Published: Stand Alone Power Systems

PIR available via AEMO's website [here](#)



SUMMARY FINDINGS

GO-LIVE: 19 June 2014

DELIVERY:

- Agreed scope / solution delivered
- Within allocated budget
- Minor testing delays resulted in the proposed rule change effective date was not achieved (no commercial impact on SAPS participants or customers)

WHAT WORKED WELL ?

- ✓ Scope & Timelines
- ✓ Engagement (internal and external)
- ✓ Collaborative design & solution delivery

WHAT COULD BE IMPROVED ?

- Timelines & testing
- Communication / engagement (internal)
- Solution design & delivery (e.g., internal requirements, resourcing, environments)

POLICY OBJECTIVES & REFORM VALUE

- The reforms effectiveness is dependent on the deployment of SAPS by distribution networks and the preference of consumers to move to an alternative option for their supply of electricity (cost savings to become more evident in the medium to long term)
- **Two Market SAPS Resource Providers (MSRPs) are currently registered with AEMO, both in NSW, with four SAPS metering points in operation in the state.**
- Regulation changes in VIC and QLD are still required to support the NEL changes in those jurisdictions

5. NEM Reform Initiative Updates

Retail Market Improvements (RMI)

Blaine Miner

September 2024: Retail Market Improvement

Retail Market Improvements: NSLP Update, Metering substitutions

Key Date(s)	NSLP Effective Date 29 September 2024, Metering Substitutions and Reason Codes effective date 4 November 2024
Likely impacted stakeholders	FRMP, ENLR, DNSP, MDP
Industry testing anticipated	Industry Testing
Overall status	Overall Green , AEMO Development in Progress

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> Retail/Metering Procedures final report published 15 December 2023 ICF_072 – new NSLP methodology, applying a minimum (non-zero) ‘floor’ to NSLP values ICF_054 – The addition of seven new substitution types and 10 new Reason Codes; the obsolescence of substitution type 16. 	<ul style="list-style-type: none"> Initial Tech Spec to support ICF_054 was issued 2 April Updated Tech Spec issued 20 May 	<ul style="list-style-type: none"> Design completed AEMO development completed 26 June. AEMO internal testing continues and is on schedule. 	<ul style="list-style-type: none"> Initiative Readiness Approach and Draft Go-Live Criteria published. Feedback requested from Implementation Forum (IF) Members Criteria will form basis for readiness checkpoint reporting 	<ul style="list-style-type: none"> Industry Test Approach published 20 June for IF and ITWG Feedback Expectation that AEMO will facilitate Industry Testing for NSLP change in similar way as the recent 5MLP testing. Industry Testing for ICF_054 to be supported up to procedure effective date. 	<ul style="list-style-type: none"> NSLP methodology system deployment date and procedure effective date 29 September 2024 Substitution Types and Reason Codes procedure effective date 4 November 2024.

Relevant links

[AEMO | July 2023 REMP Consultation](#)

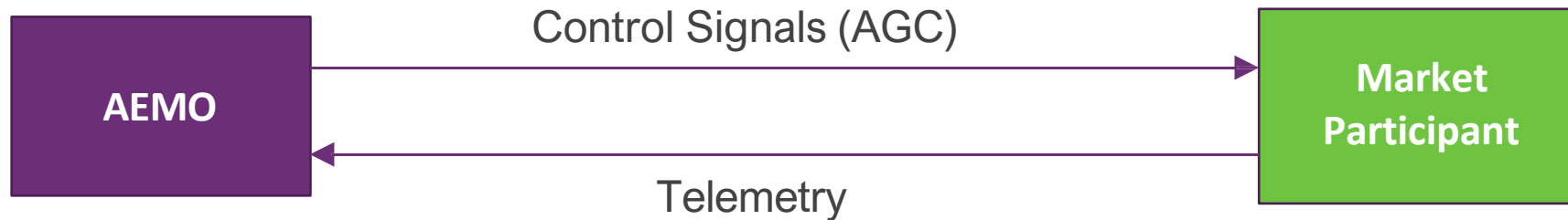
September – Retail Improvements – milestones

September 2024 - Level 1 & 2 Milestones (External)								
Level	Milestone ID	Milestone	Target Date	Expected Date	Status	RAG	Tentative / Confirmed	Commentary
Level 2	RMI-201	Retail Procedures draft issued	5-Oct-2023	5-Oct-2023	Complete		Confirmed	
Level 2	RMI-202	Retail Report final report	15-Dec-2023	11-Dec-2023	Complete		Confirmed	
Level 2	RMI-211	MSATS Tech Spec initial	27-Mar-2024	2-Apr-2024	Complete		Confirmed	Issued for publication. Published on 2/4. No participant impact.
Level 2	RMI-207	AEMO Internal Testing start	1-May-2024	26-Apr-2024	Complete		Confirmed	
Level 2	RMI-203	Readiness Approach published	26-Apr-2024	2-May-2024	Complete		Confirmed	
Level 2	RMI-204	Go-Live Criteria published	29-Apr-2024	16-May-2024	Complete		Confirmed	Publication deferred to 16th May.
Level 2	RMI-206	AEMO Internal Development complete	31-May-2024	26-Jun-2024	Complete		Confirmed	Development timeframe extended. No impact to testing timeframe.
Level 2	RMI-205	Industry Test Strategy published (draft)	28-Jun-2024	20-Jun-2024	Complete		Confirmed	
Level 3	RMI-213	Industry Test Strategy published (final)	5-Aug-2024			Green	Confirmed	
Level 2	RMI-209	Retail Market Improvements Go-Live checkpoint	29-Aug-2024			Green	Confirmed	
Level 2	RMI-208	AEMO Development & Testing complete	30-Aug-2024			Green	Confirmed	
Level 1	RMI-101	Industry Test start	2-Sep-2024			Green	Confirmed	
Level 2	RMI-210	Industry Go-Live Plan published	9-Sep-2024			Green	Confirmed	
Level 2	RMI-212	MSATS Tech Spec final	27-Sep-2024			Green	Confirmed	
Level 1	RMI-102	Retail Market Improvements Go-Live	29-Sep-2024			Green	Confirmed	
Level 1	RMI-103	Net System Profile - Procedure Effective Date	29-Sep-2024			Green	Confirmed	
Level 1	RMI-104	Metering Substitution - Procedure Effective Date	4-Nov-2024			Green	Confirmed	

SCADA Lite

Luke Barlow / Gareth Morrah

Initiative summary: SCADA Lite release



Provide a new capability for a market participant to establish a bi-directional communication path to exchange telemetry data and control signals with AEMO such that they can participate in the wholesale market. Specifically:

- Demand Response Service Providers (DRSP) providing Wholesale Demand Response (WDR).
- Generators or Integrated Resource Providers not able to exchange information or controls with AEMO via an NSP.

AEMO proposes to implement this capability via a pilot test with a selected participant to prove the service option. When working correctly the SCADA Lite service will be made available in Production to all eligible participants.

AEMO will report on progress against the established milestones – via implementation forum and PCF. No broader working groups are envisaged during the implementation process

January 2025: SCADA Lite

SCADA Lite

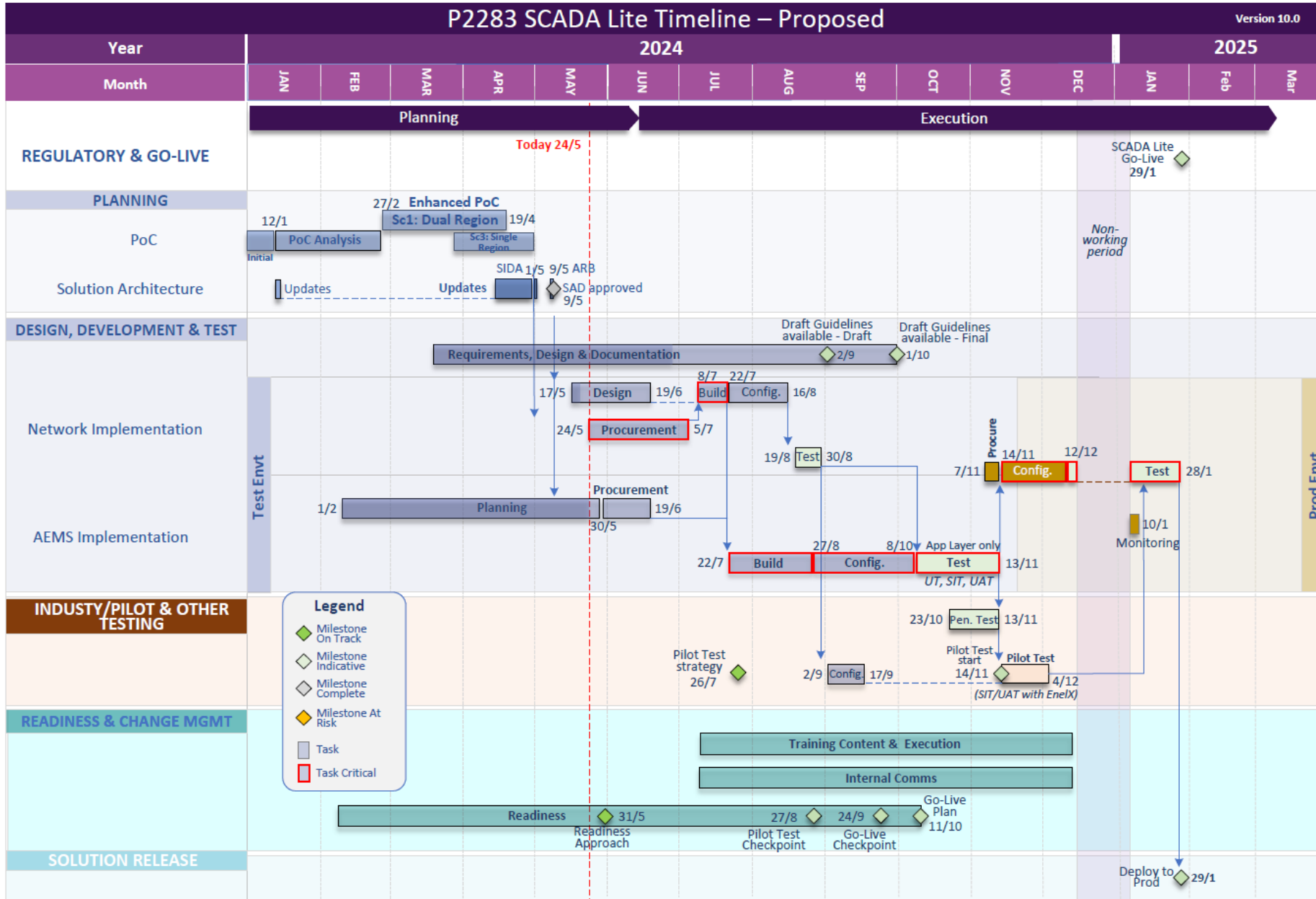
Key Date(s)	Go-live 29 January 2025
Likely impacted stakeholders	DRSPs, IRPs, Small Generators
Industry testing anticipated	Pilot Test with selected participant

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> Wholesale Demand Response (WDR) Guidelines published 25 Mar 2021 effective 24 June 2021. Power System Data & Communication Standard v3.0 published 24 Nov 2022, effective 3 Apr 2023. <p>No further procedure updates required</p>	<ul style="list-style-type: none"> Technical “How-To” Guideline – prior to go-live, Document Availability dates being revised in line with Development schedule No changes to Data Models 	<ul style="list-style-type: none"> AEMO architecture completed. Procurement process commenced. Internal technical build activities commencing this month. AEMO Delivery timeline updated after architecture process. 	<ul style="list-style-type: none"> Readiness Approach to be finalised in line with re-baselined delivery timeframes Readiness Criteria published and will form basis of readiness checkpoints and readiness tracking 	<ul style="list-style-type: none"> Pilot Test with selected participant in AEMO internal environment – Preprod not required. Testing approach to be confirmed with pilot participant, with timing to be confirmed. Solution available in Production once successfully tested. Configuration data required to establish SCADA Lite connection BAU registration process 	<ul style="list-style-type: none"> Deployment and Go-live dates currently being re-baselined. Final go-live date to be determined by 14 June

Relevant links

- [AEMO | Wholesale Demand Response Guideline](#)
- [AEMO | Power System Data & Communication Standard v3.0](#)
- [AEMO | SCADA Lite project](#)

SCADA Lite Timeline



SCADA Lite – milestones

SCADA Lite Project - Level 1 & 2 Milestones (External)									
ID	Level	Milestone	Project	Target Date	Expected Date	Status	RAG	Tentative / Confirmed	Comments
SCL-201	Level 2	Participant Impact Assessment issued	SCADA Lite	13-Sep-2023		Complete		Confirmed	
SCL-202	Level 2	Participant Readiness Approach available - Draft	SCADA Lite	23-Apr-2024	26-Apr-2024	Complete		Confirmed	
SCL-203	Level 2	AEMO development and internal testing commences	SCADA Lite	8-Jul-2024			Green	Confirmed	
SCL-203	Level 2	Participant Readiness Approach available- Final	SCADA Lite	23-Jul-2024			Green	Confirmed	
SCL-204	Level 2	Participant Readiness and Go-live Criteria published	SCADA Lite	26-Jul-2024			Green	Confirmed	
SCL-205	Level 2	Pilot Test Strategy confirmed with participant	SCADA Lite	26-Jul-2024			Green	Confirmed	
SCL-101	Level 1	AEMO development and internal testing complete	SCADA Lite	13-Nov-2024			Green	Confirmed	
SCL-206	Level 2	Readiness Checkpoint - Pilot Test Start	SCADA Lite	29-Oct-2024			Green	Confirmed	
SCL-208	Level 2	Pilot Test Plan confirmed with participant	SCADA Lite	30-Aug-2024			Green	Confirmed	
SCL-102	Level 1	Pilot test period commences	SCADA Lite	14-Nov-2024			Green	Confirmed	
SCL-103	Level 1	Pilot Test Complete	SCADA Lite	4-Dec-2024			Green	Confirmed	
SCL-210	Level 2	Readiness checkpoint - Go-live	SCADA Lite	13-Dec-2024			Green	Confirmed	
SCL-211	Level 2	External Guidelines published - Final	SCADA Lite	13-Dec-2024			Green	Confirmed	
SCL-212	Level 2	Industry Go-live Plan published - final	SCADA Lite	14-Jan-2025			Green	Confirmed	
SCL-104	Level 1	Production Release	SCADA Lite	29-Jan-2025			Green	Confirmed	

SCADA Lite: High-level impacts - DRAFT

The information presented here is general in nature. AEMO encourages industry participants to undertake their own due diligence to assess energy market reform impacts on their respective organisations.

AFFECTED TECHNOLOGY & PROCESSES	INDICATIVE PARTICIPANT CHANGE IMPACTS	AFFECTED PARTICIPANTS				
		IRP	GEN	DRSP	TNSP	DNBP
REGISTRATION	<ul style="list-style-type: none"> Required: DRSPs seeking to register >5MW of WDR from a single site/aggregation who do not provide telemetry via an NSP will require a SCADA lite connection Optional. IRPs or Generators seeking a transitional SCADA Lite connection where the NSP does not support the service. <p>MEDIUM</p> <ul style="list-style-type: none"> Provide required data and undergo required certification Direct annual fees for a SCADA Lite connection 	0	0	✓		
DISPATCH	<p>MEDIUM:</p> <ul style="list-style-type: none"> OPTIONAL - Operational systems could be upgraded to receive/respond to instruction signals from a SCADA Lite feed. 	0	0	0		
TECHNOLOGY	<p>MEDIUM for non-NSP participants:</p> <ul style="list-style-type: none"> Potential for new technology and hardware will be required to enable the bidirectional communication link with AEMO to provide telemetry and optionally receive instruction signals. 	0	0	✓		

* Refer to [SCADA Lite Stakeholder Workshop Presentation – 23 August 2023](#) for technical overview

DRSP	Demand Response Service Provider
GEN	Scheduled Generators
IRP	Integrated Resource Providers

TNSP	Transmission network service provider
DNBP	Distribution network service provider

Frequency Performance Payments (FPP)

Oliver Derum

FPP July update

AEMO welcomes feedback on this approach, either individually or via [NEM Reform Forums](#)

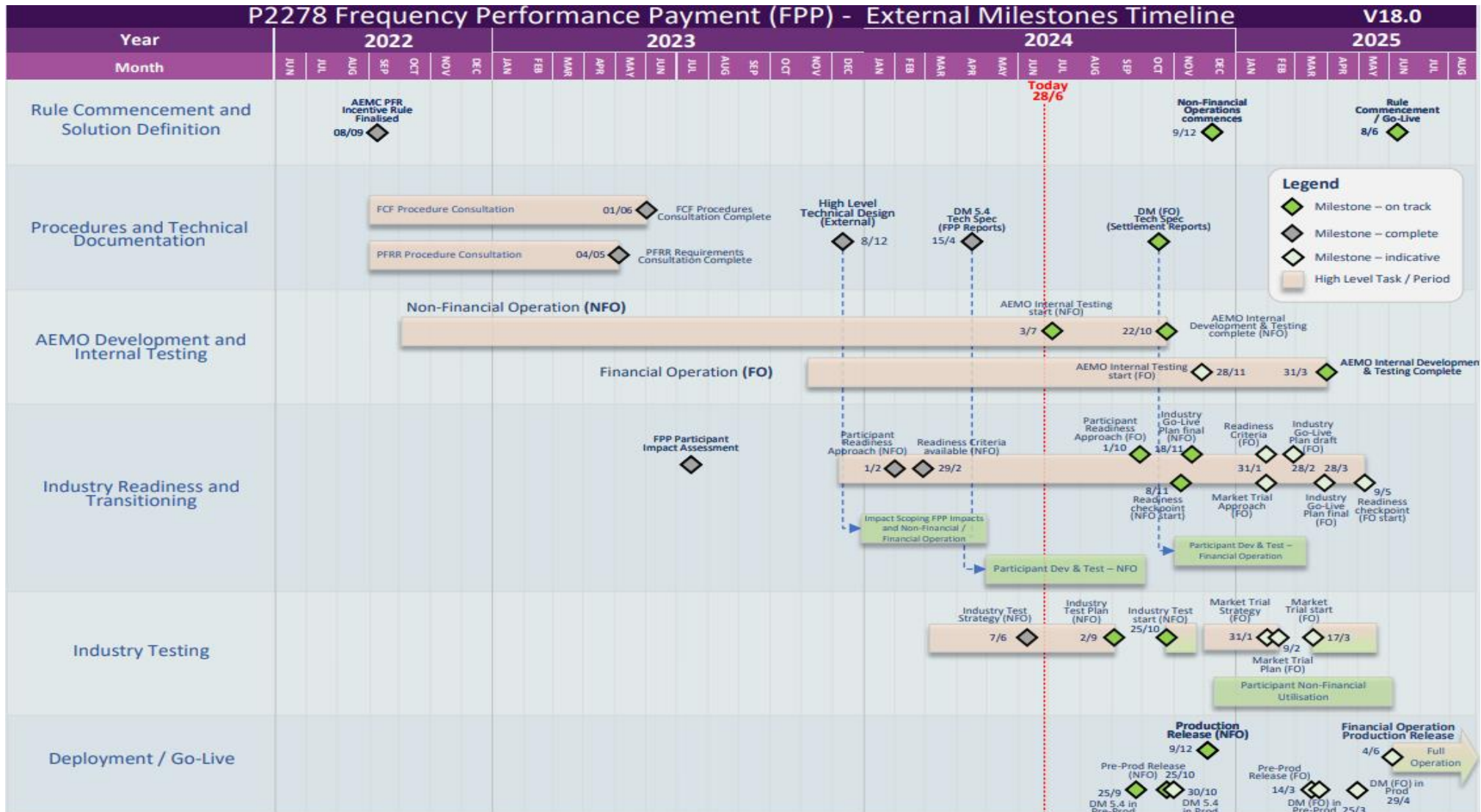
Project status

- The FPP project remains amber.
- AEMO has performed replanning of internal functionality, which in a number of cases has identified more efficient ways of delivering the required business outcomes. Once the revised plan has been finalised, the project status is expected to return to green.
- All external milestones, including the commencement of Industry Testing, the commencement of Non-Financial Operation and the publication of data model changes for FPP Settlements remain on track.

Pre-NFO engagement

- AEMO is planning a series of engagement offerings in the months before the commencement of non-financial operation (NFO) on December 9.
- The engagement plan includes:
 - Overview and Q+A sessions to offered 3, 2 and 1 month before the commencement of NFO
 - Publication of new technical information, including: an FPP factor calculation guide (Nov); a guide to FPP and FCAS cost recovery (Dec), and; Guide to changes to the Constraint FCAS Processor being made as part of FPP (Dec).
 - Email announcements of important milestones.

FPP development and testing timeline



FPP- External Milestones NFO (as at 28/6/24) - Delivery

Level	Milestone ID	Milestone	Project	Target Date	Expected Dat	Status	RAG	Tentative / Confirmed	Commentary
Level 2	FPP-221	High Level Technical Design (External)	FPP-NFO	15-Dec-2023	8-Dec-2023			Confirmed	
Level 2	FPP-222	Participant Readiness Approach (incl. Dev Support Reqmts) published	FPP-NFO	1-Feb-2024	1-Feb-2024			Confirmed	
Level 2	FPP-230	Readiness Criteria available (NFO)	FPP-NFO	29-Feb-2024	29-Feb-2024			Confirmed	
Level 2	FPP-217	Data Model 5.4 Tech Spec (FPP Reports)	FPP-NFO	15-Apr-2024	15-Apr-2024			Confirmed	Project resource to deliver confirmed
Level 2	FPP-227	Industry Test Strategy (NFO) published	FPP-NFO	7-Jun-2024	7-Jun-2024			Confirmed	
Level 2	FPP-212	AEMO Internal Testing commenced (NFO)	FPP-NFO	3-Jul-2024		Not started	Green	Confirmed	Delays in completion of components of internal functionality. Internal testing commencement not impacted
Level 2	FPP-229	Industry Test Plan published (NFO)	FPP-NFO	2-Sep-2024			Green	Confirmed	
Level 2	FPP-231	Industry Development finish (NFO)	FPP-NFO	1-Oct-2024			Green	Tentative	
Level 1	FPP-103	AEMO Internal Development & Testing complete (NFO)	FPP-NFO	22-Oct-2024		Not started	Green	Confirmed	
Level 2	FPP-225	Pre-Production Release (NFO)	FPP-NFO	25-Oct-2024			Green	Confirmed	
Level 2	FPP-233	Data Model 5.4 available in Pre-Prod	FPP-NFO	25-Sep-2024			Green	Confirmed	
Level 1	FPP-104	Industry Test start (NFO)	FPP-NFO	25-Oct-2024		Not started	Green	Confirmed	
Level 2	FPP-236	Readiness Checkpoint - Go-Live (NFO)	FPP-NFO	8-Nov-2024			Green	Confirmed	
Level 2	FPP-235	Industry Go-Live Plan published - final (NFO)	FPP-NFO	18-Nov-2024			Green	Confirmed	
Level 2	FPP-238	Data Model 5.4 available in Prod	FPP-NFO	30-Oct-2024			Green	Tentative	
Level 2	FPP-246	Production Release (NFO)	FPP-NFO	9-Dec-2024			Green	Confirmed	
Level 1	FPP-105	Non-Financial Operations commences	FPP-NFO	9-Dec-2024		Not started	Green	Confirmed	

FPP- External Milestones FO (as at 28/6/24) - Delivery

FPP Project - Level 1 & 2 Milestones (External)								
Level	Milestone ID	Milestone	Project	Target Date	Expected Date	RAG	Tentative / Confirmed	Commentary
Level 2	FPP-218	Data Model (FO) Tech Spec (Settlement Reports)	FPP-FO	22-Sep-2024		Green	Confirmed	
Level 2	FPP-214	Participant Readiness Approach published (Financial Operation)	FPP-FO	1-Oct-2024		Green	Confirmed	
Level 2	FPP-237	AEMO Internal Testing commenced (FO)	FPP-FO	28-Nov-2024		Green	Tentative	
Level 2	FPP-223	Market Trial Strategy published (Financial Operation)	FPP-FO	31-Jan-2025		Green	Tentative	
Level 2	FPP-224	Readiness Criteria available (Financial Operation)	FPP-FO	31-Jan-2025		Green	Tentative	
Level 2	FPP-239	Industry Go-Live Plan published - draft (Financial Operation)	FPP-FO	28-Feb-2025		Green	Tentative	
Level 2	FPP-242	Data Model (FO) available in Pre-Prod	FPP-FO	15-Mar-2025		Green	Tentative	
Level 2	FPP-226	Pre-Production Release (Financial Operation)	FPP-FO	14-Mar-2025		Green	Tentative	
Level 1	FPP-108	Market Trial start (Financial Operation)	FPP-FO	17-Mar-2025		Green	Tentative	
Level 2	FPP-243	Industry Go-Live Plan published - final (Financial Operation)	FPP-FO	28-Mar-2025		Green	Tentative	
Level 1	FPP-107	AEMO Internal Development & Testing complete (Financial Operation)	FPP-FO	31-Mar-2025		Green	Confirmed	
Level 2	FPP-244	Readiness Checkpoint - Financial Operation	FPP-FO	9-May-2025		Green	Tentative	
Level 1	FPP-109	Production Release (Financial Operation)	FPP-FO	4-Jun-2025		Green	Tentative	
Level 1	FPP-106	FPP Project Go-Live / Rule Commencement	FPP-FO	8-Jun-2025		Green	Confirmed	

June 2025: Frequency Performance Payments

FREQUENCY PERFORMANCE PAYMENTS (FPP)

Key Date(s)	Go-live June 2025
Likely impacted stakeholders	Generators, Market Customers
Industry testing anticipated	Extended period of non-financial operation for participant validation expected, Industry Testing for NFO, market Trial for FO
Overall Status	Project Delivery Status = AMBER with focus on AEMO internal Capability, All External milestones on track

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> Final Primary Frequency Response Requirements procedure published 4 May. Final Frequency Contribution Factor Procedure published 1 June, along with the related Tuning Parameters and Input Sources document. 	<ul style="list-style-type: none"> Data Model Technical Specification with updates for FPP reporting – April 2024 issued, initial release is current Data Model Technical Specification with updates for FPP Settlements reporting – Sept 2024 	<ul style="list-style-type: none"> AEMO development in Progress, certain internal functionality will now be delivered later than planned All External capability on track AEMO Internal Testing will commence on schedule Data integration Jun to Dec 2023 (NFO) Settlements system development Jul to Dec 2024 (FO) 	<ul style="list-style-type: none"> Readiness Criteria for NFO published and will form basis of readiness checkpoints and readiness tracking 	<ul style="list-style-type: none"> FPP calculation testing Dec 2024 (non-financial operation) Industry test Strategy to be issued 7 June 24 – On track NFO Industry Test Period 25 Oct – conducted as Industry Test Subsequent FO Settlements testing scheduled for April 2025 	<ul style="list-style-type: none"> NFO Production commencement scheduled for 9th December Prod release end May 2025 for 8th June 2025 Rule commencement

Relevant links

- [AEMO | Frequency Contribution Factors page \(Contains Frequency Contribution Factors Procedure and Tuning Parameters\)](#)
- [AEMO | Frequency Contribution Factors Procedure Consultation Page](#)
- [AEMO | Frequency Performance Payments project](#)

Metering Services Review (MSR)

Justin Stute

Metering Services Review (MSR)

- A [keynote address](#) by AEMC Chair Anna Collyer on 12 June 2024 discussed pushing back the Accelerating Smart Meter Deployment final determination because of 'ongoing concerns for customers seeing unexpected changes to their tariffs when smart meters are installed.'
- The AEMC announced on 4th July that the final determination will be delayed and published on 28th November 2024.
- AEMO will now assess the procedure consultation timeframes and advise of the updated plan in coming weeks.

Metering Services Review (MSR)

Package 1 Responses to Issues Paper (initial stage) due 11 July*

- Business to Business Issues paper published 29 May covering Defects, LMRP and Shared Isolation
- Business to Market Issues paper published 29 May covering Defects and LMRP

Package 2:

- TBC, will commence following the AEMC's Final Rule determination

Package 3:

- TBC, awaiting AEMC's Final Rule determination

* The AEMC has delayed the publication of the final rule determination until 28 November 2024. AEMO proposes to defer publication of the package 1 consultation draft stage (second stage) until after the publication of the final rule determination. AEMO will provide updated timelines in the next few weeks.

Enhancing Reserve Information (ERI)

Oliver Derum

Feedback on the Draft HLIA

- One email submission was received from EA, supporting the early, voluntary commencement of aggregated state-of-charge data before 1 July 2027.
- Additional clarifications were sought about how data would be provided on:
 - How state of charge data for batteries will be provided (via SCADA).
 - Whether the inclusion of energy availability/constraints for scheduled generators in the Pre-dispatch (PD) process would require submission of a shaped profile from generators (Participants are not forced to bid an availability profile, but some do. If they don't, PD dispatches them until the daily energy limit is reached for the trading day).
 - Why batteries are not included in the PD forecasts (this had not been considered; the PD approach is an enhancement of the rule requirement for a figure to be published at the start of the trading day).
- Origin's comment at the June OCF about the relative usefulness of different elements of the recent HLIAs is also noted and an additional summary table(s) will be added to the ERI document.
- The Final ERI HLIA will be published in July.

AEMO to voluntarily publish aggregated state of charge for grid-scale batteries* from 1 July 2025, in all regions except Tasmania

- The obligation on AEMO to publish the aggregated state of charge for batteries* commences on 1 July 2027.
- AEMO invited comment in the Draft HLIA, and via June meetings of NEM Reform Forums, on the possibility of AEMO voluntarily publishing this data from 1 July 2025 in regions with sufficiently developed battery markets.
- AEMO received no objections to this proposal and a single expression of support.
- **AEMO, therefore, intends to begin publishing aggregated state of charge data for grid-scale batteries in all NEM Regions, except Tasmania, from 1 July 2025.**
- All other NEM regions have batteries operated by at least three different parent organisations, meaning an aggregated figure can be published without revealing an individual position to a direct competitor.

* Within NER 3.7G, “battery means a scheduled bidirectional unit, excluding a pumped hydro production unit”.

Managing the impact of a ‘work around’ used to submit daily energy limits

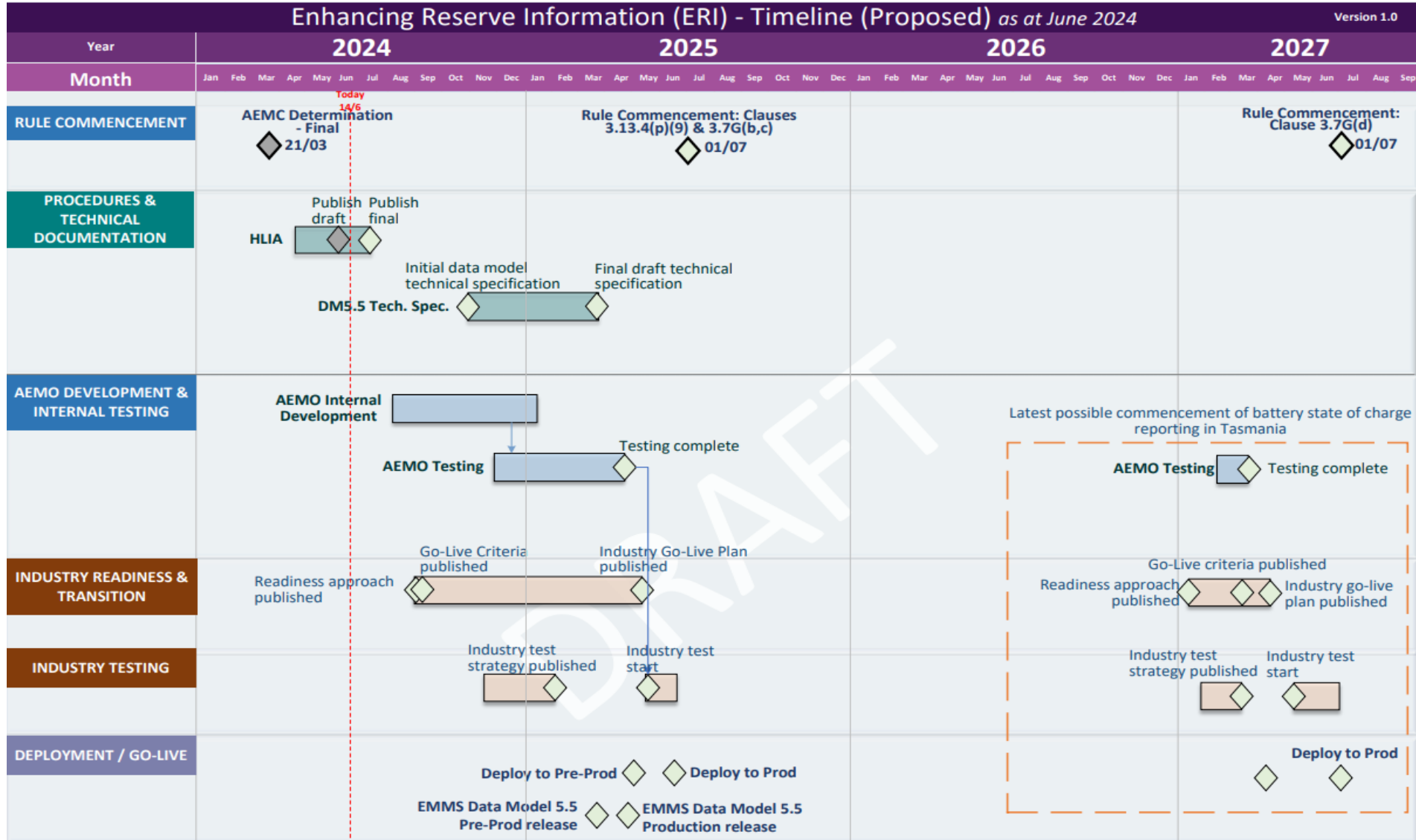
- The way some participants indicate they do not have any energy constraints will, if not corrected (or corrected for), create ongoing errors that undermine the scheduled generator reserves element of the ERI reform.
- As part of the introduction of 5 Minute Settlement (5MS), changes were made to the way participants indicate whether they were energy constrained.

Pre 5MS	Current arrangements
Participants indicated the extent of any energy constraint. 0 = No constraint	Participants indicate their energy availability. 0 = No energy available NULL = No constraint

- As a work around, participants unable to submit NULL instead entered a number like ‘999999’ or other value larger than their unconstrained availability.
- This item will be discussed at the July Electricity Wholesale Consultative Forum (EWCF), 16 July at 1pm AEST. AEMO has requested attendees engage with their business, especially those continuing to employ a work around, about the best way to ensure energy availability is accurately reflected for ERI.

ERI development and testing timeline

Subject to confirmation following comments received on the HLIA



July 2025: Enhancing Reserve Information

Key Date(s)	Go-live 1 July 2025 (energy availability of scheduled generators and previous day’s state of charge for batteries) Go live 1 July 2027 (latest commencement of real time state of charge of batteries)
Likely impacted stakeholders	Generators, grid-scale batteries
Industry testing anticipated	Industry testing to precede go-live of first changes in 2025. Battery state of charge to initially be tested at the same time as other functionality, with appropriate re-testing before the commencement of operation in each region (which will occur in July 2027 at the latest)
Overall Status	Project Delivery Status = Green. AEMO design work in progress

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> Currently, no procedures are considered to require updating. 	<ul style="list-style-type: none"> Data Model Technical Specification with updates for ERI to be published in late 2024. 	<ul style="list-style-type: none"> AEMO development to occur in Q4 2024 (indicative) AEMO testing to occur in early 2025 Feb-Mar (indicative) 	<ul style="list-style-type: none"> Readiness Criteria for commencement published and will form basis of readiness checkpoints and readiness tracking. 	<ul style="list-style-type: none"> Industry testing from Mar 2025 (indicatively). Appropriate re-testing to precede the commencement of near real-time battery state of charge, on 1 July 2027 at the latest. 	<ul style="list-style-type: none"> Deployment of all functionality to occur in June 2025, including for features that will commence out to 1 July 2027. AEMO is exploring the costs and benefits of commencing operation of the final functionality earlier than 1 July 2027.

Relevant links
AEMO Enhancing Reserve information project page

Improving Security Frameworks (ISF)

Carla Ziser

ISF June update

- Improved Directions Transparency arrangements commence on 4 July 2024. In readiness for this, an expedited consultation was held for [AEMO's operating procedure for Directions](#) to include a new section which outlines the content that will be included in direction market notices. The final version of the procedure is to be published in early July.
- AEMO released a provisional version of the [Security Enablement Procedure](#) on 28 June 2024, setting out requirements for system security service agreements. A full version of the Security Enablement Procedure will be consulted on in 2025.
- The first version of the ISF High-level Implementation Assessment (HLIA) was [published](#) on 31 May. Stakeholders are welcome to provide feedback to NEMreform@aemo.com.au

Next steps

- Consultation papers for the Inertia Requirements Methodology, and NSCAS Description & Quantities procedure, will be released in early July.

Improving Security Frameworks

Key Date(s)	Go-live 2 December 2025 (Security enablement obligations on AEMO will commence)
Likely impacted stakeholders	Transmission Network Service Providers, Integrated Resource Providers and other security providers
Industry testing anticipated	Industry testing to precede go-live date.
Overall Status	Project Delivery Status = Green. AEMO project mobilisation work in progress

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> Several new procedures to be developed under the ISF Rule. Existing procedures require update to align with the ISF Rule – refer HLIA for indicative list. 	<ul style="list-style-type: none"> Technical Specification with updates for ISF to be published in Q2 2025. 	<ul style="list-style-type: none"> AEMO development to occur in Q1 2025 (indicative) AEMO testing to occur in late 2025 	<ul style="list-style-type: none"> Readiness Criteria for commencement published and will form basis of readiness checkpoints and readiness tracking. 	<ul style="list-style-type: none"> Industry testing in Q4 2025 (indicative). 	<ul style="list-style-type: none"> Deployment of all functionality to occur in time for 2 December 2025 go-live.

Relevant links
AEMO Improving Security Frameworks project page

Market Interface Technology Enhancement (MITE)

Blaine Miner, Graeme Windley,
Nirmal Narayanamurthi

Market Interface Technology Enhancement (IDX, IDAM and PC) Update

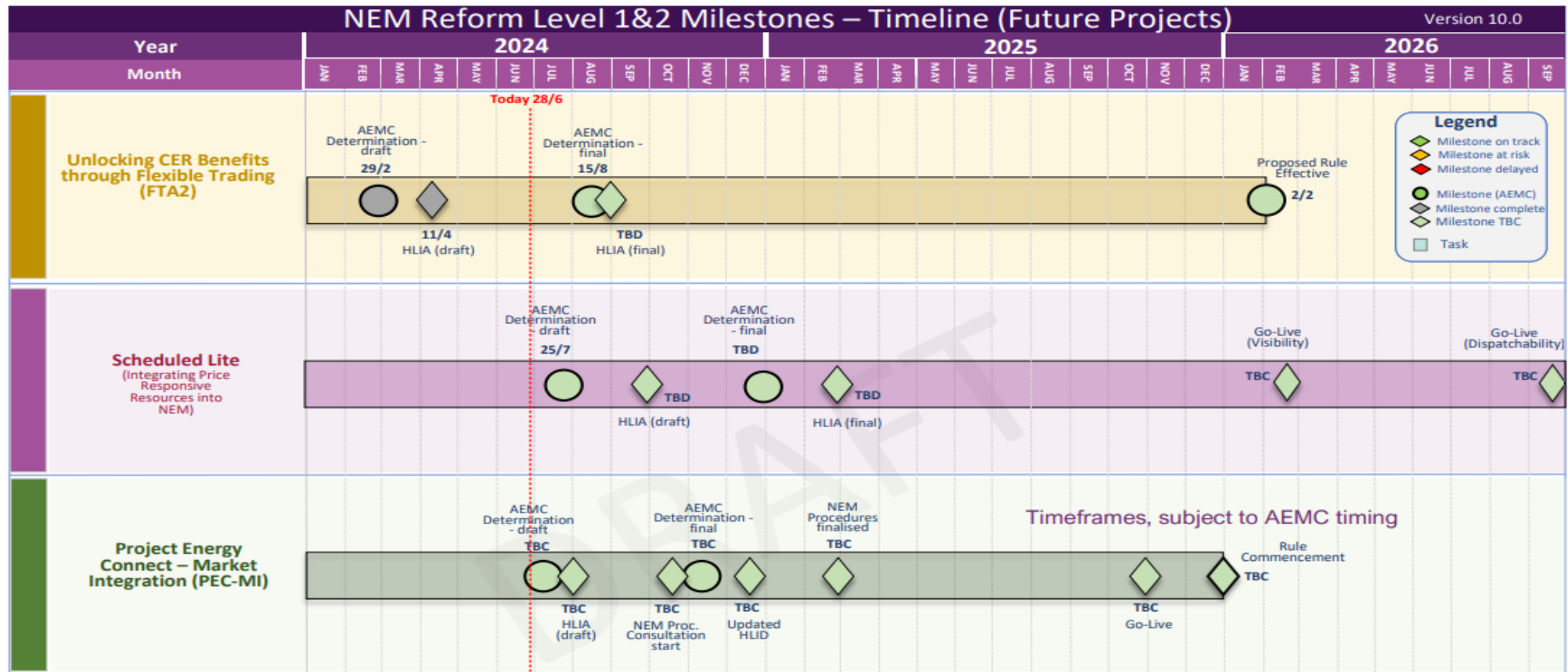
- AEMO has been progressing its planning activities to support the delivery of the approved business case, noting decision point #2 associated to IDX transition continues to be forecast for Q4 2025.
- External Engagement Strategy
 - The Market Interface Technology Enhancement engagement strategy is currently being prepared, which outlines AEMO's intended approach to support the planning, development and delivery of IDX (foundation), IDAM (strategic target state) and PC (strategic target state)
 - This strategy will include communication methods, key stakeholders, a high-level engagement schedule and key milestones
 - The strategy is expected to be circulated to the PCF for feedback by the end of July
- Draft key milestones (PoaP)
 - Indicative timings to be confirmed for IDX include:
 - Engagement on Draft technical specifications circa Q2 2025
 - Implementation on core capability targeted for late 2025 or early 2026
 - Indicative timings to be confirmed for IDAM include:
 - Engagement regarding organisation hierarchy target state, basic data sharing concepts and detailed design and processes circa Q1 2025
 - Engagement regarding transition plans circa Q2 2025

Market Interface Technology Enhancement Working Group (MITEWG)

- AEMO is proposing to establish a Market Interface Technology Enhancement Working Group (MITEWG) to collaborate with stakeholders on:
 - Proposed protocols, message exchange patterns, gateway changes & pilot scope.
 - Proposed Organisation Hierarchy concepts.
 - Basic and advanced data sharing concepts.
 - Target state design, patterns, and impacted 'To-be' processes.
 - Progressive migration processes and detailed transition plans.
 - Proposed Technical Specifications.
- MITEWG Call for nominations
 - AEMO will be seeking nominations from impacted parties e.g. market participants, solution providers/vendors, which will also include the nomination of a 'MITEWG coordinator' (primary contact point).
 - The role of the coordinator is to nominate suitably qualified representatives from their organisation to support proposed sessions/agendas.
 - Note, membership will be limited to ensure more effective engagement
- The first session of the MITEWG is planned to occur in August, exact timings and agenda are still to be confirmed

6. NEM Reform – Forward Plan

Upcoming Initiatives



Unlocking CER Benefits through Flexible Trading

Justin Stute

Unlocking CER Benefits through Flexible Trading

Key Dates

- Draft Determination 29 February 2024
- Stakeholder submissions to Draft Determination 11 April 2024
- Expected Final determination **15 August 2024**
- RDC recommendations to move the effective date of the reform to 2 November 2026

Proposed Change

- AEMC have consulted on moving NMI creation and maintenance of Secondary Settlement Points from the DNSP to a new NMI Service Provider Role

ST PASA Recall Time

Nicole Nsair / Chris Muffett

AEMC's Updating Short Term PASA rule change

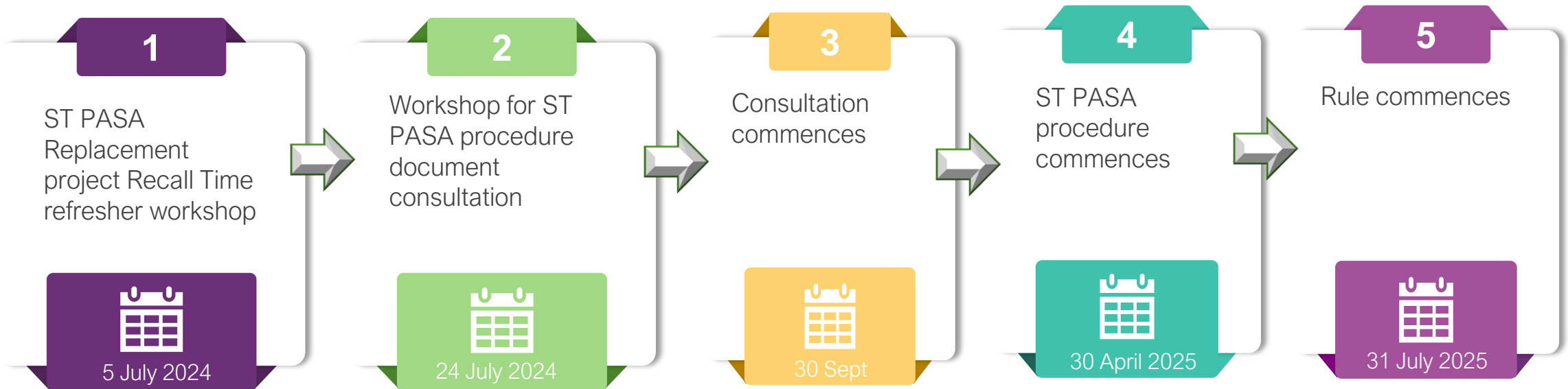
Final Determination (5 May 2022)

- Requires AEMO to develop the ST PASA procedures to describe how it will administer the ST PASA process
- Requires AEMO to publish generator availability information on a per unit /dispatchable unit identifier (DUID) level
- Changed the definitions of PASA availability (recall time) and energy constraint
- Changed the ST PASA timeframe to reflect current practices

Indicative High Level timetable

The Updating Short Term PASA rule has two commencement dates:

1. ST PASA Procedures – 30 April 2025
2. Changes to generator availability information, recall time and publishing timeframes – 31 July 2025



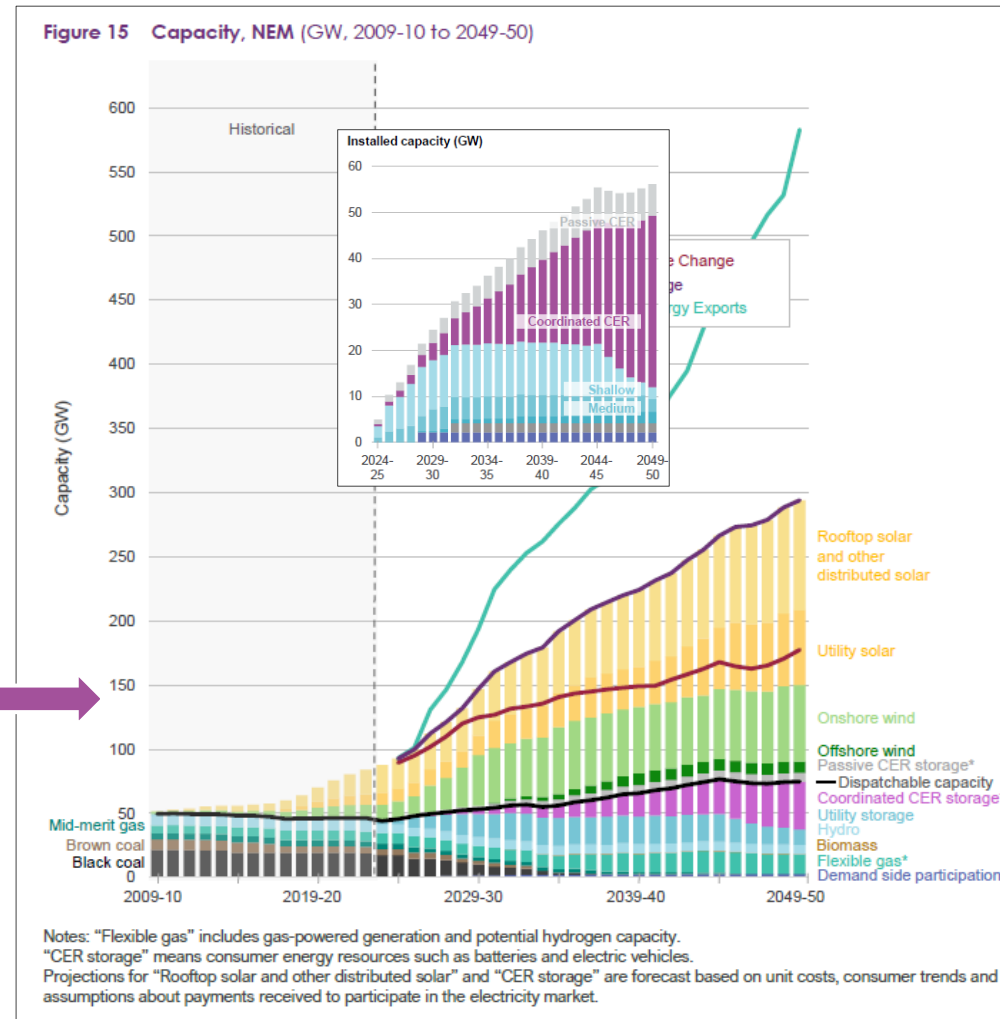
Integrating price-responsive resources (IPRR) into the NEM

Luke Barlow

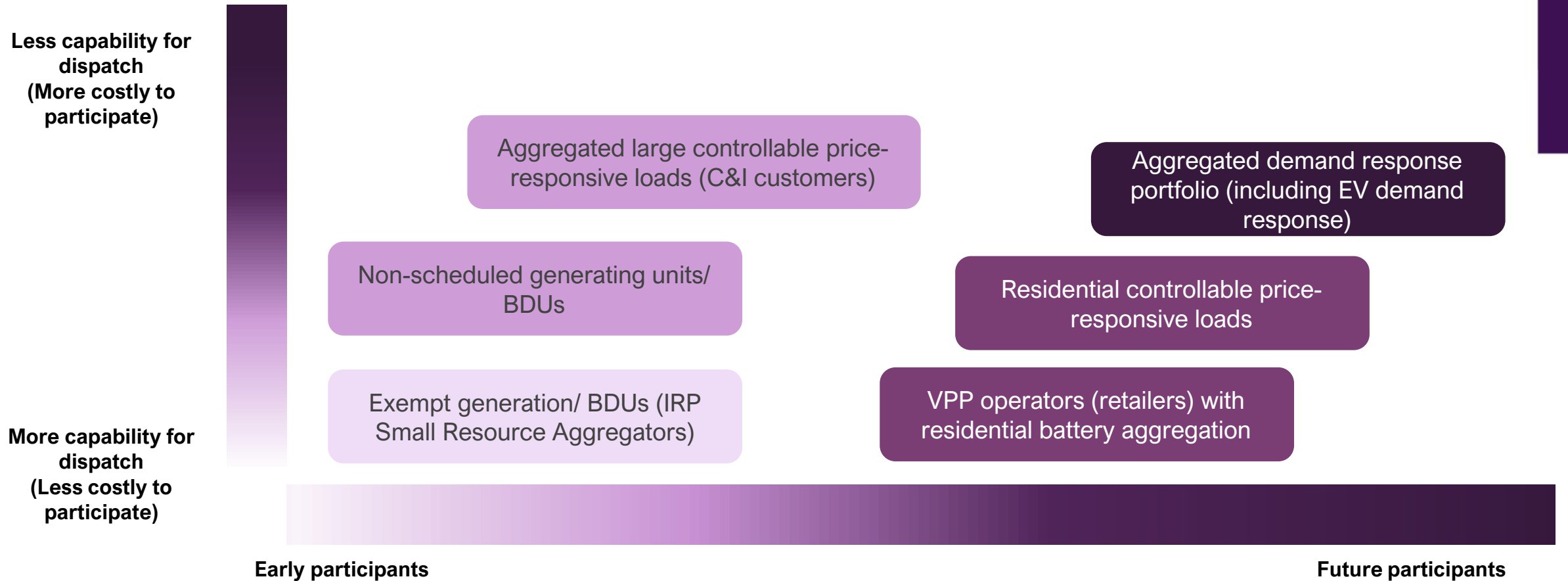
What is the purpose of the IPRR reform?

Integrate unscheduled price-responsive resources into NEM scheduling and dispatch processes:

- Voluntary
- Includes aggregations of resources/VPPs
- Have the same opportunities as other scheduled resources to participate in market services
 - incl. energy, reg FCAS & capacity schemes
- Play a role in delivering the future anticipated in [2024 Integrated System Plan](#)
- If effectively integrated, reduce the need for duplicative investment in large-scale storage.

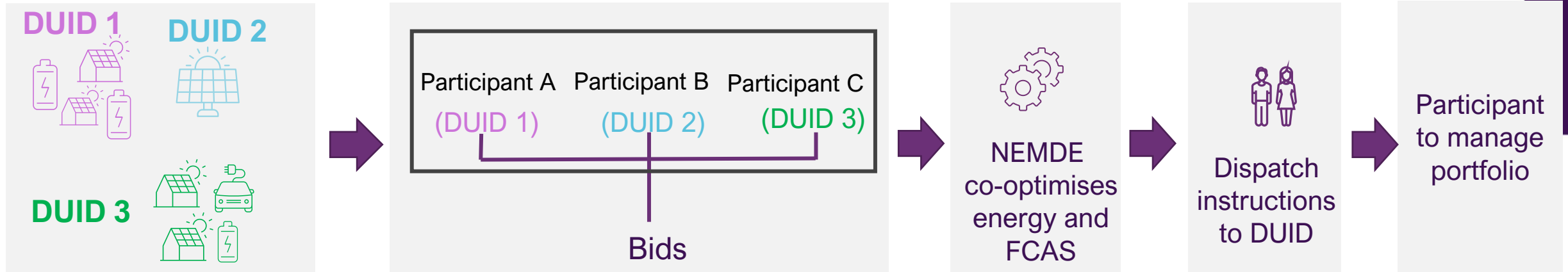


Who would participate in IPRR?



Proposed IPRR dispatch

Consistent with existing framework for scheduled BDUs

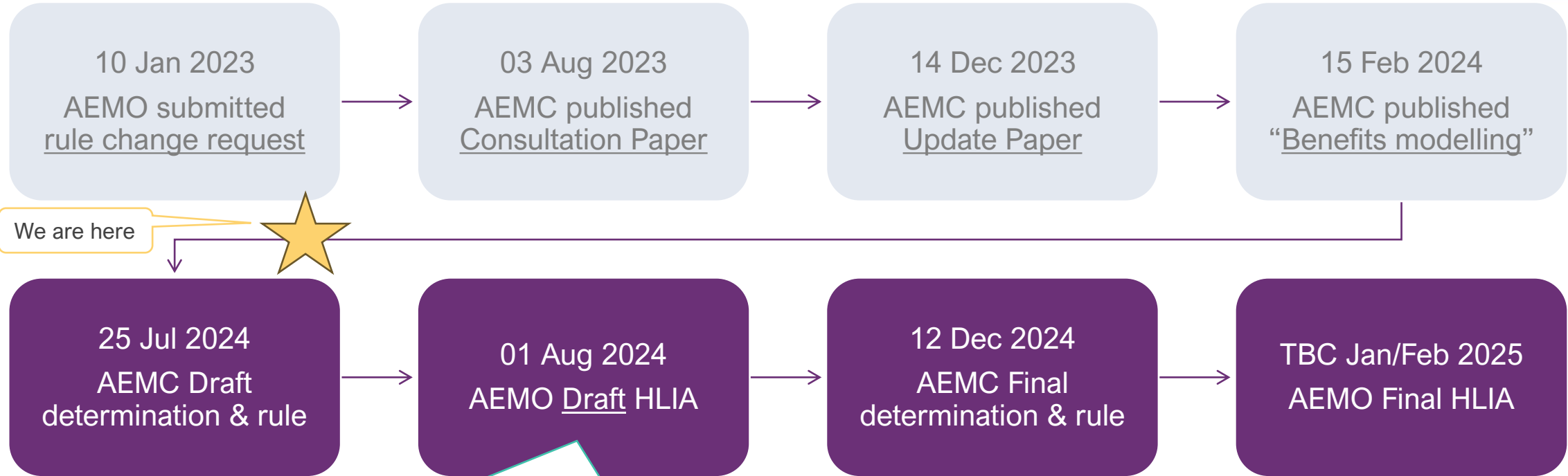


For every trading interval for which it is scheduled, the participant will receive a dispatch instruction for its DUID:

- A single bi-directional dispatch instruction representing the net flow to be achieved by its DUID
- Enablement for each FCAS service

Participants will need to disaggregate the dispatch instruction to their portfolio and comply with respect to the services they provide.

High-level timeline to date



We are here



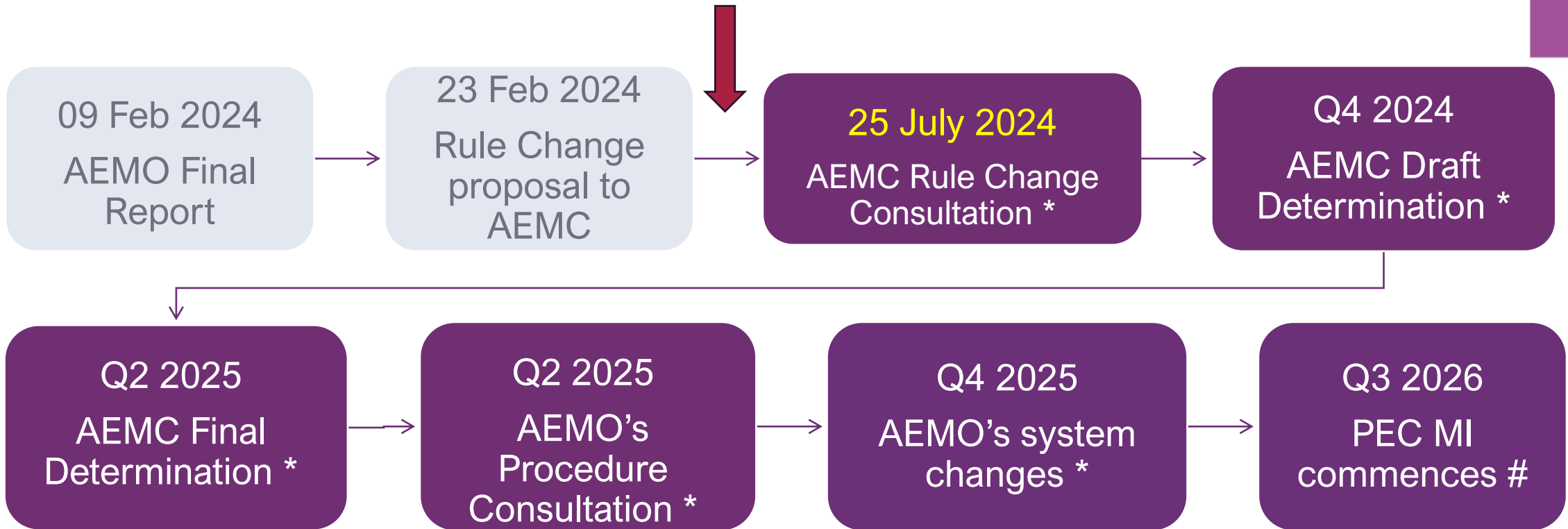
AEMO’s draft HLIA will help inform AEMO’s and industry’s submissions to AEMC, particularly around policy design and implementation timeframe. AEMO will:

- Hold an **industry briefing** on draft HLIA on Mon 05 Aug
- Seek **feedback** on its draft HLIA by Mon 19 Aug.

Project Energy Connect Market Integration (PEC – MI)

Nicole Nsair / Chris Muffett

PEC-MI Indicative High-level Timeline



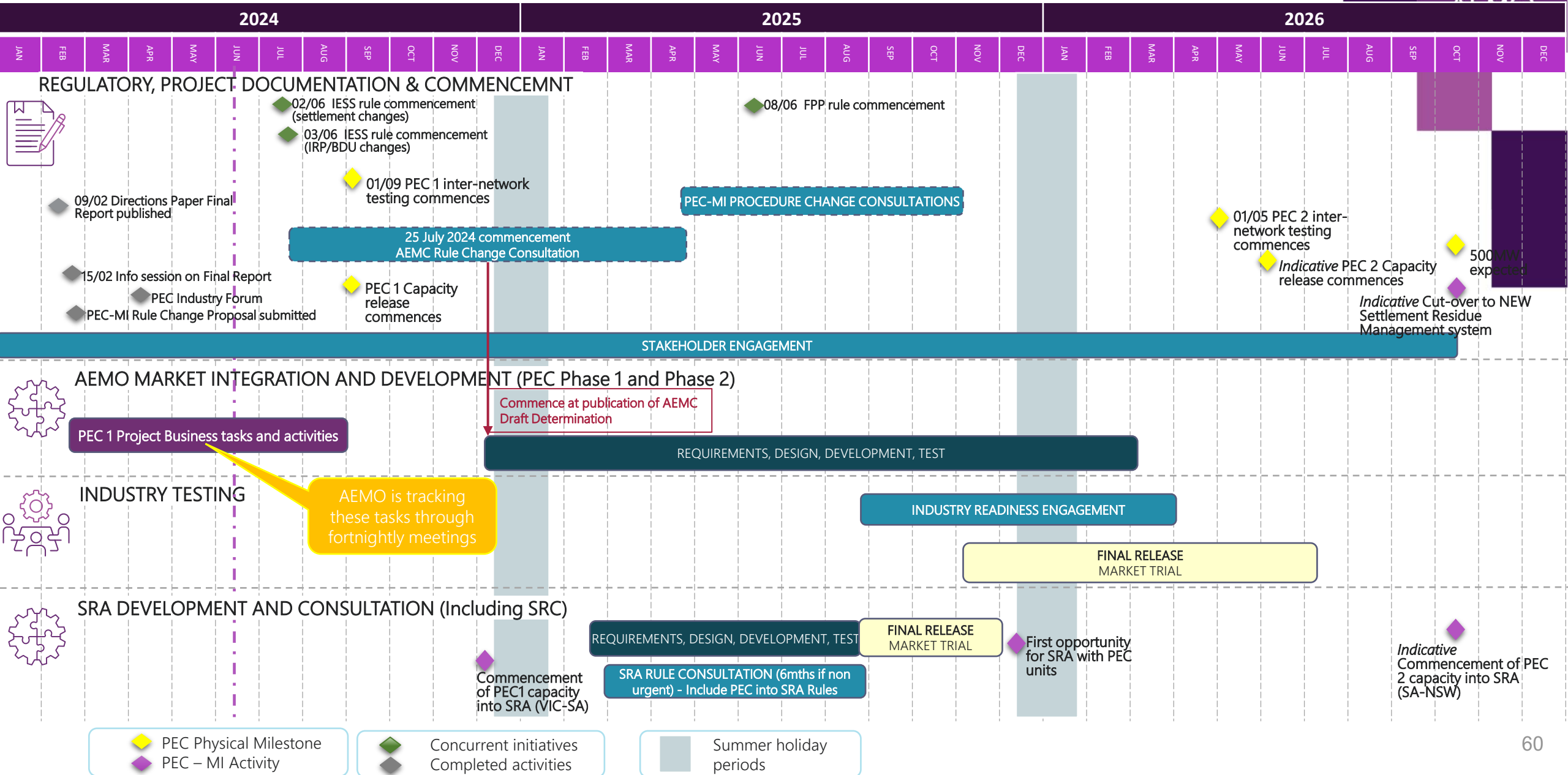
QUICK REFERENCES

- AEMO - [PEC-MI webpage](#)
- PEC - [Industry webpage](#)
- AEMC - [Rule Change Pending](#)

NB

* Rule and procedure dates indicative timeframes, subject to AEMC timing
 # PEC 2 will be completed and in service by the June quarter of 2026
 (Inter-network testing to commence 1 May 2026)

PEC-MI – Indicative Activity Timeline



7. NEM Reform Industry Risk Register

Industry Risk Register (as of July 2024)

AEMO provides participants with visibility of key material risks associated with the delivery of the NEM Reform Program through maintaining an external Industry Risk Register.

Approach



AEMO reviews the industry risk register quarterly at the PCF. The review includes consideration of risk descriptions, risk ratings, risk trend, impact and mitigation actions in addition to consideration of new and emerging risks.



The Industry Risks and Issues register has been updated to provide an AEMO program view of Industry Risk.



Our review proposes updates to Risk titles, descriptions and controls & mitigations.



A copy of the risk register has been provided to participants for review.

Next steps



Participants to provide feedback on the industry risk register by Friday 19 July 2024. Participants can also provide initial feedback in this session.



AEMO will incorporate participant feedback into version 5 of the risk register and publish the register on the [PCF webpage](#).



Feedback on the risk register can be submitted to NEMReform@aemo.com.au



The next review of the industry risk register will be at the October 2024 PCF.



Risks will continue to be reported by exception at other PCF sessions.

Industry Risk Register (as of July 2024)

AEMO has reviewed the industry risk register to provide a program view of risk. Proposed summary changes are outlined below in red.



Industry Risk Register Version 5 (Summary changes)

Risk Category	Risk I.D.	Risk title	Residual Risk Rating	Trend	Proposed changes following AEMO review
Volume of regulatory change	R01.1	Delivery congestion – 2023	Low	↘	Risk closed.
	R01.2	Delivery congestion – Long term (2025 – 2026)	Medium-High	→	<i>Risk title</i> updated. <i>Risk description</i> minor updates to make current. <i>Current controls / mitigation</i> updated to include HLIA mitigation action.
	R01.3	Sub-optimal delivery outcomes	Medium-High	→	<i>Current controls / mitigation</i> updated to include HLIA mitigation action.
	R01.4	Delivery congestion – Near term (2024)	Medium-High	→	<i>Risk title</i> updated. <i>Current controls / mitigation</i> updated to include HLIA mitigation action.
AEMO Delivery Program	R02.1	AEMO Resourcing	Medium-High	→	<i>Risk description</i> minor updates to make current.
Participant development and readiness	R03.1	Participant development timeframes	Medium-High	→	<i>Current controls / mitigation</i> updated to include additional efforts to avoid development timeframe compression.
	R03.2	Industry Resourcing	Medium-High	→	No change.
	R03.3	Emerging Participant Engagement	Low-Medium	→	No change.
	R03.4	Sub-optimal delivery outcomes	Medium-High	→	<i>Risk description</i> minor updates to make current.
	R03.5	Participant investment and implementation	Medium-High	→	<i>Current controls / mitigation</i> updated to include leveraging participant insight.
	R03.6	Extended participant engagement	Medium-High	→	<i>Current controls / mitigation</i> updated to include HLIA mitigation action.

9. NEM Reform Stakeholder Update

Upcoming Engagements

For Noting

Upcoming Engagements

July						
M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August						
M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September						
M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October						
M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NEM Reform Program Committees/Forums

Executive Forum	
Reform Delivery Committee	
Reform Delivery Committee Collaborative Workshop	
Program Consultative Forum	
Electricity Wholesale Consultative Forum	
Implementation Forum	
Industry Testing Working Group	

Other Forums

Electricity Retail Consultative Forum	
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Other

National Public Holiday	
State/Territory Public Holiday	

10. General Questions and Other Business



NEMReform@aemo.com.au



[NEM Reform Program Consultative Forum](#)



Appendix A: 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>



For more information visit

aemo.com.au