

# NEM Reform Program Consultative Forum

Meeting #14  
13 December 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 and present.**

# Agenda

#	Time	Topic	Presenter
1	1:00-1:05pm	<b>Welcome</b>	Chris Muffett
2	1:05-1:10pm	<b>Actions &amp; Feedback from Previous Meeting</b>	Monica Morona
3	1:10-1:25pm	<b>Program &amp; Release Update</b>	Rowena Leung / Jim Agelopoulos
4	1:25-1:50pm	<b>Spotlight</b> <ul style="list-style-type: none"> <li>• June 2024 – IESS</li> <li>• June 2025 – FPP</li> </ul>	Greg Minney / Emily Brodie Oliver Derum
5	1:50-1:55pm	<b>NEM Reform Program Stakeholder Survey</b> <ul style="list-style-type: none"> <li>• Approach</li> </ul>	Monica Morona
6	1:55-2:10pm	<b>Industry Risk Register Update</b>	Greg Minney
7	N/A	<b>Noting – Commencement Updates</b> <ul style="list-style-type: none"> <li>• March 2024 Metering Exemptions</li> <li>• September 2024 Release</li> </ul>	N/A - Taken as read

#	Time	Topic	Presenter
8	2:10pm-2:20pm	<b>Post Implementation Program Assessment</b>	Lance Brooks
9	2:20-2:25pm	<b>Foundational &amp; Strategic Initiatives</b> <ul style="list-style-type: none"> <li>• IDX IDM PC</li> </ul>	Luke Barlow
10	2:25-2:35pm	<b>NEM Reform Forums Update</b> <ul style="list-style-type: none"> <li>• RDC November Update</li> <li>• NEM Reform Executive Forum</li> </ul>	Lance Brooks Chris Muffett
11	2:35-2:40pm	<b>Upcoming Engagements</b>	Lenard Bayne
12	2:40-3:00pm	<b>General Questions and Other Business</b>	Chris Muffett

**Appendix A:**  
Competition law meeting protocol

**Appendix B:**  
NEM Reform program Engagement, Planning, Delivery and Readiness.

*"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 & Feedback from Previous Meeting

(Item = Meeting # – Agenda # – Reference)

Item	Topic	Action	Responsible	Status
13.5.0.1	NEM Reform Program Review	AEMO to develop an industry survey on the year past and ways that the program can improve for the year ahead.	AEMO	In progress

# 3. Program & Release Update

# 2023 has been an intensive, but successful year

- Collectively, we have successfully deployed a large volume of reforms with the November 2023 release marking our final release for this calendar year
- While we as an industry should be proud of the successful deployment of those initiatives they have not been without their challenges
- Building on established engagement structures, **the program has evolved to deliver integrated planning for participants and prioritise participant facilitation** to support participants with the necessary information and artefacts that underpin their own readiness preparations (see next slide)
- For example:
  - AEMO to provide early, whenever possible High-Level Implementation Design for participant consideration
  - A better understanding and factoring in of participant development timelines and support requirements can enable AEMO to better mitigate delivery risks and reduce overall implementation stress (Informed by participant impact assessments)

Release	Initiatives	Status
Mar-23	Integrating Energy Storage Systems (Initial release)	Delivered
	Stand Alone Power Systems (SAPS) Market Stand-Alone Power System Resource Provider (MSRP) Registration	Delivered
MAY-23	CDR (excluding LCCD)	Delivered
	B2B v3.8 and other ICFs	Delivered
JUN-23	SAPS	Delivered
AUG-23	Integrating Energy Storage Systems (ADC)	Delivered
	Fast Frequency Response - Dispatch & Reg	Delivered
OCT-23	Fast Frequency Response	Delivered
	5 Minute load profile	Delivered
	Increased MT PASA Information	Delivered
NOV-23	CDR (LCCD), CDR Ph3, MSDR compliance Holiday	Delivered



# Program Update

Good progress made in the following areas.

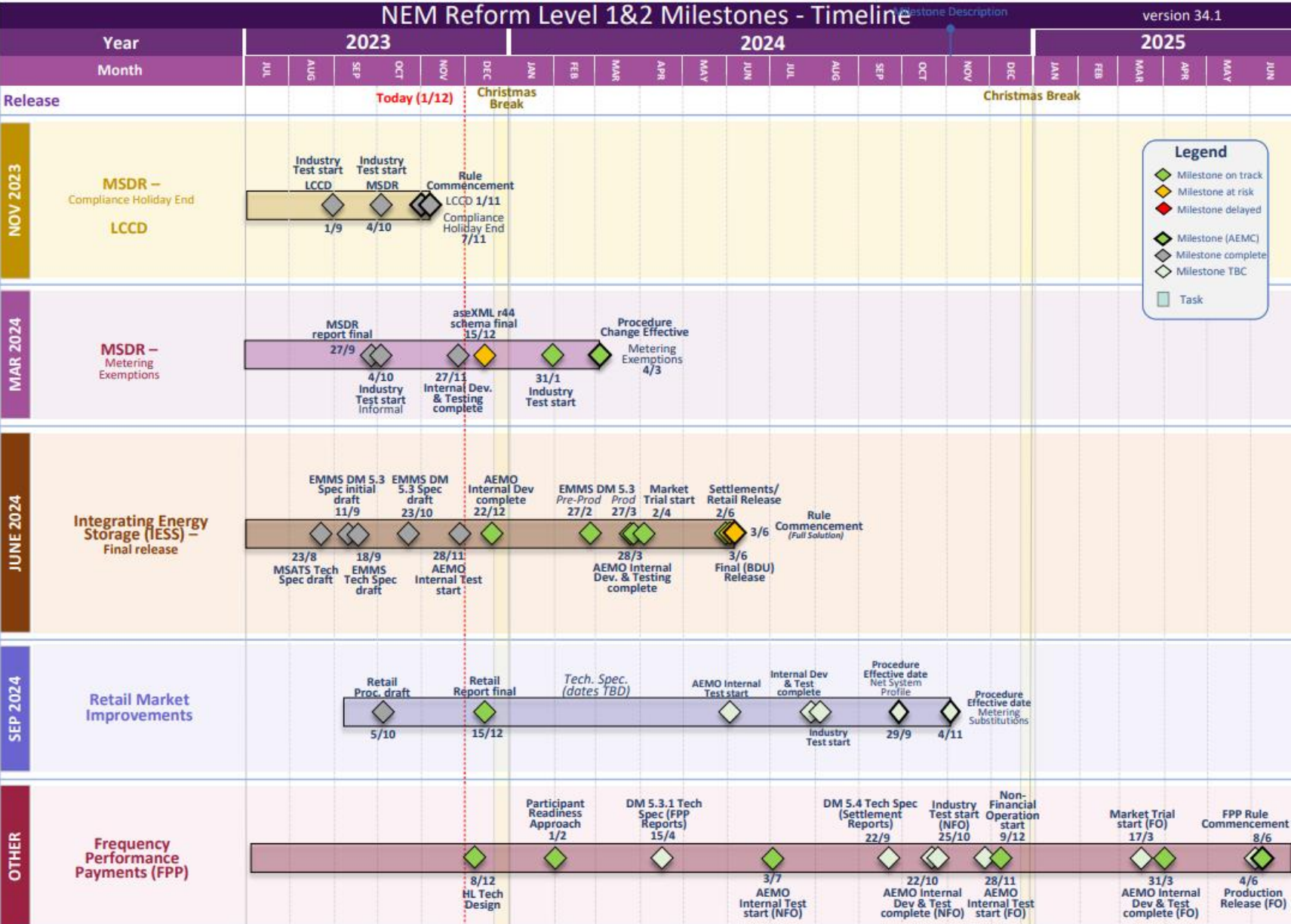
- **2023 releases have now been completed**
- **Our attention will now turn to focus on initiatives being delivered in 2024 and commencing in 2024 for 2025 implementation**

Key areas receiving management attention:

- **IESS June 24:** On schedule, Project checkpoint confirmed progress to go-live date, Project remains Amber reflecting lack of schedule contingency
- **IDAM/IDX/PC:** Business Case to be issued 15 Dec for Industry Feedback, followed by Industry Walkthrough and assessment in early 2024
- **2025 Initiatives:** Preparations and design activities in 2024 to support initiatives scheduled for implementation in 2025

Release	Initiatives	Previous Status	Current Status	Key Points	Impacted Stakeholders
MAR-24	Metering Exemptions (MSDR)	Green	Green	Informal Industry Test in progress, aseXML schema r44 available, AEMO development and testing complete, On track for 4 March	Retailers, MC and MP/MDP, DNSP
JUN-24	Integrating Energy Storage Systems [Final]	Yellow	Yellow	Project Status Amber recognising tight schedule for remaining activities, Checkpoint confirmed progress toward 2/3 June Go-lives. Interim Readiness milestones on-track	IRPs, NSPs, FRMP, MP/MDP, Vendors
SEP-24	Retail Market Improvements	Green	Green	Proposed scope to include NSLP and metering substitutions ICF, REMP consultation Final Report due 15 Dec. Proposed release date is 29 Sept 2024 for NSLP, 4 November for Metering Substitutions. AEMO to confirm delivery milestones.	MC, MDP, FRMP, DNSP
DEC-24 & JUN-25	Frequency Performance Payments	Green	Green	Project progressing to schedule. High level tech design on track for 8 December.	Generators, Market Customers

# NEM Reform Level 1&2 Milestones PoaP



### Key call outs:

- The Metering Exemptions internal development and testing of the r44 schema has completed. The draft version of the Schema was published on 8/11. Publication of the final version of the r44 Schema Specification has been deferred to allow for confirmation activity and is now expected 15/12. Informal Industry Testing continues.
- IESS Project – Internal Development and System Testing continues and is close to completion. Integration testing has commenced for the Settlements solution.
- FPP Project – the High-Level Technical Design is expected to be available on 8/12. Development & Testing continues for the FPP solution.
- Retail Market Improvements – the Retail Report final version is due to be published on 15/12. Planning is in progress.

# 4. Spotlight



# June 2024 - IESS Update

Emily Brodie

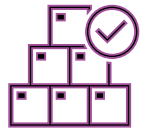
# IESS June 2024 updates



1. Release update

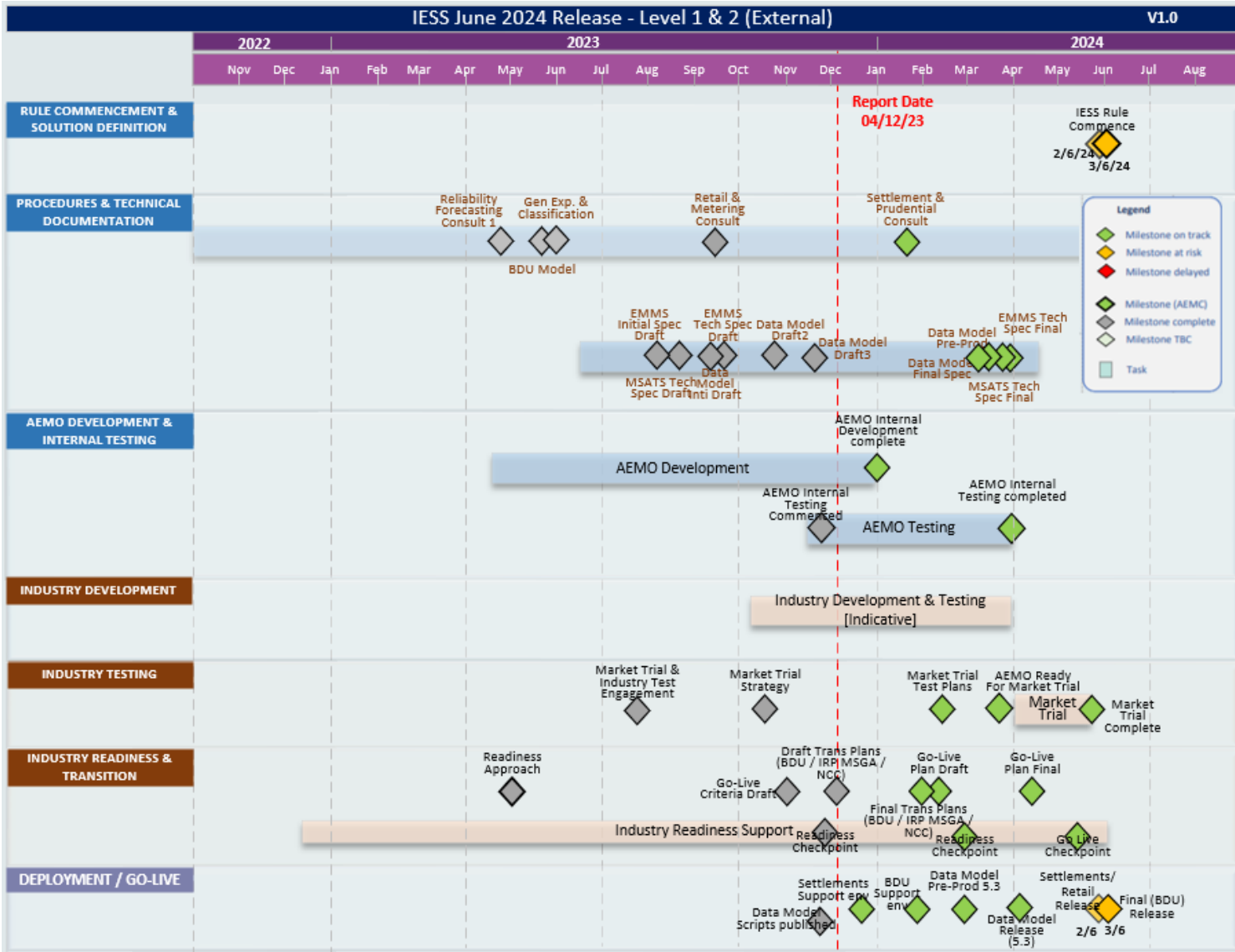


2. IESS checkpoint summary



3. IESS work stream update

# June 2024 - IESS Final Release



## RELEASE COMMENTARY

- Although most components of the schedule are green, the **overall project status** is rated **AMBER**. This recognises no schedule contingency for a complex AEMO delivery program. Interim milestones and progress will continue to be tightly managed against go-live criteria.
- AEMO Development** is scheduled to complete for all participant facing components on schedule in December, with some minor updates and some internal support capability continuing into January.
- AEMO Internal Testing** execution started 3-4 days late due to environment preparation over-run. Test execution schedule can absorb the delay with no impact to the planned completion date.
- Procedures consultation** in progress via EWCF/ ERCF\* and on track.
- Tech specs** on track:
- Updated [EMMS tech spec Data Model v5.3](#) published Mon 20 Nov
- Industry Testing**
  - [PDSE fact sheet](#) and access survey published Tue 14 Nov
  - Market trial planning underway via ITWG
  - Draft Data model scripts for PDSE released Wed 22 Nov
  - PDSE on track for IESS settlements development support Fri 15 Dec
- Industry Readiness:**
  - [Readiness check point](#) held at Implementation Forum against go live criteria
  - Draft transition plans published on Fri 01 Dec
  - Updated [Data Model Settlements mapping explainer](#) published Fri 17 Nov
  - Contingency planning started

\*Electricity wholesale / retail consultative forums

# IESS external milestones as at 04/12/23



## IESS Project - Level 1 & 2 Milestones (External)

Level	Milestone ID	Milestone	Target Date	Expected Date	RAG	Tentative / Confirmed	Comments
Level 1	IES-100	AEMC Final Determination Published (Integrating energy storage systems into the NEM)	2-Dec-2021	2-Dec-2021	Complete		
Level 2	IES-110	IESS High level Design final	7-Jul-2022	7-Jul-2022	Complete		
	IES-210	Reliability Forecasting Consultation 1	28-Apr-2023	28-Apr-2023	Complete		
Level 1	IES-120	BDU Model Finalised	31-May-2023	31-May-2023	Complete		
Level 2	IES-211	Guide to Gen. Exp. & Classification - Final documents published	1-Jun-2023	1-Jun-2023	Complete		
	IES-300	MSATS Technical Specification draft available	7-Aug-2023	23-Aug-2023	Complete		
Level 2	IES-301	EMMS Data Model 5.3 specification - Initial Draft	11-Sep-2023	11-Sep-2023	Complete		
	IES-302	EMMS June 24 Technical Specification (Draft)	18-Sep-2023	18-Sep-2023	Complete		
	IES-213	Retail Metering Procedures Final Published	18-Sep-2023	18-Sep-2023	Complete		
	IES-303	Industry Test and Market Trials Strategy Draft published	22-Sep-2023	22-Sep-2023	Complete		
	IES-304	EMMS Data Model 5.3 specification - Draft 2	9-Oct-2023	23-Oct-2023	Complete		
	IES-305	Industry Test and Market Trials Strategy complete	17-Oct-2023	17-Oct-2023	Complete		
Level 2	IES-306	Go-Live Criteria draft/establish	30-Oct-2023	30-Oct-2023	Complete		
Level 2	IES-307	EMMS Data Model 5.3 specification - Draft 3	13-Nov-2023	20-Nov-2023	Complete		
	IES-308	AEMO Internal Testing commenced	20-Nov-2023	28-Nov-2023	Complete		Complete this period
	IES-309	Draft Data Model 5.3 scripts published	22-Nov-2023	22-Nov-2023	Complete		Complete this period
	IES-310	Initiative Readiness Checkpoint	28-Nov-2023	28-Nov-2023	Complete		Complete this period
	IES-311	Transition Plan Draft (BDU / IRP MSGA / NCC)	15-Dec-2023	1-Dec-2023	Complete		Complete this period
	IES-312	Settlements Participant Support Environment available	15-Dec-2023		Green	Confirmed	
	IES-217	AEMO Internal Development complete	22-Dec-2023		Green	Confirmed	Participant facing capability to be completed , some internal support and minor updates to be completed in Jan
	IES-313	BDU Participant Development Support Environment available	22-Jan-2024		Green	Confirmed	
	IES-314	Settlements & Prudentials Procedures published	29-Jan-2024		Green	Confirmed	
	IES-315	Transition Plan Final (BDU / IRP MSGA / NCC)	31-Jan-2024		Green	Confirmed	Draft Published 1/12
	IES-316	Market Trial Test Plan complete	16-Feb-2024		Green	Confirmed	
	IES-317	Industry Go-Live Plan Draft published	26-Feb-2024		Green	Confirmed	
	IES-218	EMMS Data Model 5.3 Released to Pre-Production	27-Feb-2024	13-Mar-2024	Green	Confirmed	
Level 1	IES-318	Initiative Readiness Checkpoint	1-Mar-2024		Green	Confirmed	
Level 1	IES-319	EMMS Data Model 5.3 final specification available	12-Mar-2024		Green	Confirmed	
Level 2	IES-219	EMMS Data Model 5.3 Released to Production	27-Mar-2024	10-Apr-2024	Green	Confirmed	
Level 2	IES-107	AEMO Internal Development & Testing complete	28-Mar-2024		Green	Confirmed	
	IES-320	AEMO Ready for Market Trial	2-Apr-2024		Green	Confirmed	
Level 1	IES-321	MSATS Technical Specification final available	2-Apr-2024		Green	Confirmed	
	IES-322	EMMS Settlement Technical Specification final	2-Apr-2024		Green	Confirmed	
	IES-108	Market Trial start	2-Apr-2024		Green	Confirmed	
Level 1	IES-214	Reliability Forecasting Consultation finalised	12-Apr-2024		Green	Confirmed	
Level 2	IES-323	Settlement Certification complete	19-Apr-2024		Green	Confirmed	
Level 2	IES-324	Industry Go-Live Plan Final published	19-Apr-2024		Green	Confirmed	
	IES-325	Go-Live Checkpoint	1-May-2024		Green	Confirmed	
	IES-326	Market Trial complete	24-May-2024		Green	Confirmed	
	IES-220	IESS Settlements Go-Live	2-Jun-2024		Green	Confirmed	
Level 2	IES-327	Rule Commencement Date - Settlements [NECR]	2-Jun-2024		Green	Confirmed	
Level 2	IES-221	IESS BDU Go-Live	3-Jun-2024		Amber	Confirmed	Reflects compressed schedule
	IES-109	IESS Final Release [BDU] - Rule Commencement	3-Jun-2024		Amber	Confirmed	Reflects compressed schedule



# June 2024: Integrating Energy Storage Systems

<b>Key Date(s)</b>	<ul style="list-style-type: none"> <li>• Settlements / NECR go-live Sun 02 Jun 2024</li> <li>• IRP/BDU go-live Mon 03 Jun 2024</li> </ul>
<b>Affected stakeholders</b>	<ul style="list-style-type: none"> <li>• Changes to settlement data tables and non-energy cost recovery framework (NECR): Financially responsible market participants</li> <li>• Introduction of IRP participant type and bi-directional unit (BDU) bidding, scheduling and participation: BDU participants, SGAs, bidding system vendors/developers</li> </ul>
<b>Industry testing</b>	<ul style="list-style-type: none"> <li>• Market trial and industry testing, participant development support environment</li> </ul>
<b>Overall status</b>	<ul style="list-style-type: none"> <li>• <b>AMBER</b>: On schedule. Overall amber remains due to tight development and testing schedules.</li> </ul>

Procedures	Technical documentation	AEMO development & internal testing	Industry readiness & transition	Industry testing	Deployment & go-live
<p><b>Current procedure consultations:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Prudentials</a>: Credit Limit Procedures – Final Fri 15 Dec 2023</li> <li>• <a href="#">Settlements</a>: NEM Settlement Estimates Policy - Subs due Fri 15 Dec 2023</li> </ul> <p><b>Upcoming procedure consultations</b> Feb 2024 (TBC):</p> <ul style="list-style-type: none"> <li>• SO_OP_3705 Dispatch Procedure</li> <li>• Regulation FCAS Contribution Factors Procedure</li> <li>• Frequency Contribution Factors Procedure</li> </ul>	<p><b>Changes to:</b></p> <ul style="list-style-type: none"> <li>• MSATS technical specification</li> <li>• EMMS technical specification</li> <li>• MMS Data model</li> </ul> <p><b>Milestones</b> for initial, draft and final documentation confirmed (see project schedule).</p> <p>Updates to Tech Specs published monthly as required for identified changes</p>	<ul style="list-style-type: none"> <li>• AEMO Development Scheduled to complete for all participant facing capability by 22 December. Minor updates and some internal support requirements will continue into January</li> <li>• Internal Testing execution commenced 28 Nov. following environment preparation overrun. Execution schedule will absorb impact with no impact to completion</li> </ul>	<ul style="list-style-type: none"> <li>• IESS readiness approach finalised</li> <li>• IESS go-live criteria finalised</li> <li>• 6 month Readiness Checkpoint conducted</li> <li>• Contingency Approaches in development</li> <li>• Settlement , BDU and IRP participant briefing sessions scheduled or conducted</li> </ul> <p>IESS transition plans:</p> <ul style="list-style-type: none"> <li>• Drafts published 01 Dec</li> <li>• Feedback due Fri 19 Jan</li> <li>• Finals published Wed 31 Jan</li> </ul>	<p>Participant development support environment (PDSE):</p> <ul style="list-style-type: none"> <li>• Settlements Fri 15 Dev</li> <li>• BDU bidding &amp; dispatch Mon 22 Jan</li> </ul> <p>IESS industry testing and market trial strategy complete.</p> <p>IESS Market Trial plan/s</p> <ul style="list-style-type: none"> <li>• Draft Fri 19 Jan</li> <li>• Final Mon 16 Feb</li> </ul> <p>Program support via ITWG and regular Q&amp;A sessions.</p>	<p>Readiness and go-live criteria and regular checkpoints established.</p> <p>Deployment plans:</p> <ul style="list-style-type: none"> <li>• Draft Feb 2024</li> <li>• Final Apr 2024</li> </ul>

## Relevant links



# IESS industry readiness is underway

- < 4 months until market trial
- < 6 months until go-live



## INDICATIVE INDUSTRY PREPARATIONS

- Individual development and testing
- Where applicable, prepare for industry testing and market trial
- BESS participants to work with their bidding system vendor and AEMO to establish cutover timing to BDU operations

# 2. IESS go-live checkpoint summary

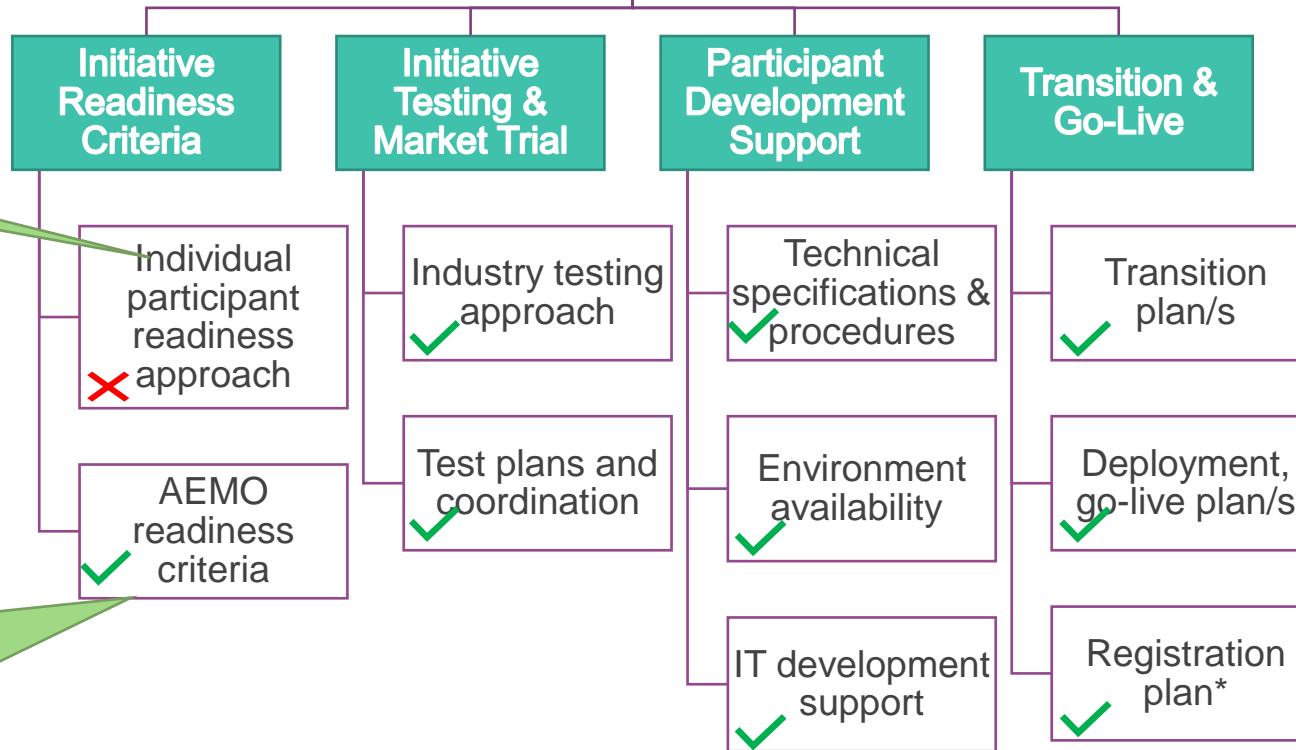
Greg Minney

# REFRESHER: High-level IESS readiness approach

## NEM REFORM READINESS STRATEGY (ALL INITIATIVES)

### IESS JUNE 2024 READINESS APPROACH

IESS readiness approach adopts the standard NEM Reform program framework



Individual participant readiness is **NOT** a dependency for go-live.

- AEMO Market systems updated and tested
- AEMO business needs to be ready to operate
- AEMO IT support needs to be in place

*\*Reaccreditation not required for existing participants*

## RISK & CONTINGENCY MANAGEMENT ✓

## INITIATIVE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT ✓

**This session relates to go-live criteria management**

# IESS June: Readiness checkpoint

- [IESS Readiness Approach](#) provides for interim checkpoints against agreed [IESS go-live criteria](#):
  - Conduct checkpoints at 6, 3 and 1-month prior to go-live
    - Nov-23, late Feb-24, late Apr-24
  - Provide snapshot of progress against baseline plan and industry preparation
  - Provide assessment against go-live criteria and baseline project implementation schedule
- Contingency plans to be developed, and agreed with Industry, to be incorporated into 3 and 1-month checkpoints

# IESS June 2024: Readiness & go-live criteria



INITIATIVE	<p><b>IESS Sun 02 Jun 2024</b></p> <ul style="list-style-type: none"> <li>New non-energy cost recovery (NECR) framework</li> <li>Associated settlement database structure updates</li> <li>New IRP registration category</li> <li>New/updated NCC</li> </ul>	<p><b>IESS Mon 03 Jun 2024</b></p> <ul style="list-style-type: none"> <li>BDU classification and participation</li> </ul>	<p><b>READINESS CHECKPOINT 28 NOVEMBER 2023</b></p> <p><b>Summary status:</b></p> <ul style="list-style-type: none"> <li>On track against Schedule</li> <li>Schedule remains tight with no contingency for remaining milestones</li> </ul>
GO-LIVE CRITERIA			
AEMO	<p><b>AEMO solution</b> tested in-line with requirements for:</p> <ul style="list-style-type: none"> <li>NEM operation incorporating new NECR framework from rule commencement date</li> <li>Providing for new IRP registration category</li> </ul>	<p><b>AEMO solution</b> tested in-line with requirements for enabling scheduled batteries to participate as a single DUID in energy and FCAS markets</p>	<ul style="list-style-type: none"> <li><b>Solution development</b> on track against baseline schedule. AEMO Development (external facing) on track to complete in December as scheduled. Some internal Development items now scheduled for January completion, no impact to critical path</li> <li><b>Internal testing</b> commencement delayed 4 days. No impact to test execution or scheduled completion timings</li> <li>Interim development milestones met</li> <li>Internal test schedule and approach baselined recognising overlap with development completion</li> <li>Schedule remains tight for completion, no contingency for remaining activities</li> </ul>
<p><b>AEMO business:</b></p> <ul style="list-style-type: none"> <li>Ready to operate new NECR framework</li> <li>Ready to register IRPs</li> <li>Has re-registered SGAs as IRPs</li> </ul>	<p><b>AEMO business</b> ready to support BDU operations in the NEM</p>	<ul style="list-style-type: none"> <li><b>AEMO business</b> impacts assessed and preparations on track</li> <li><b>NEM Procedures</b> mostly completed, Settlements procedures on track for completion in December (on schedule)</li> </ul>	
INDUSTRY	<ul style="list-style-type: none"> <li>Participant readiness activity is not a prerequisite for go-live.</li> <li>However to ensure that NEM operations remain uninterrupted and reliable, AEMO will monitor for any systemic issue that materially affects NEM operational integrity.</li> </ul>	<p>Participant readiness activity is not a prerequisite for go-live, noting:</p> <ul style="list-style-type: none"> <li>BDU transition period to 03 Mar 2025 means that there is no industry readiness requirement for “day 1” (rule commencement)</li> <li>Participants can cutover on or near rule commencement date if they choose to and are ready</li> </ul>	<ul style="list-style-type: none"> <li>BDU / IRP / NCC <b>transition planning</b> in progress and on track including industry engagement</li> <li><b>Draft technical specifications</b> provided for MMS changes to support earlier development progress</li> <li><b>PDSE</b> deliverables on schedule to support participant development</li> <li><b>No systemic readiness issues</b> for participant Settlement identified at present</li> <li><b>BDU transition period</b> remains available to support Participant BDU transition timings</li> </ul>
CONTINGENCY	Contingency approaches to be developed and discussed with IF		<p><b>Contingency approaches</b> currently in development, with separate approaches considered for Settlements/NECR and BDU components.</p>

# 3. IESS workstream updates

Emily Brodie

# IESS workstream updates



## IESS SETTLEMENTS



## IRP & BDU

**\*\*To be read in conjunction with the IESS release schedule\*\***

### NOVEMBER 2023

Tue 14 Nov	<a href="#">Fact sheet on Participant development support environment</a> and survey <a href="#">IESS readiness and go-live criteria</a>	
Fri 17 Nov	<a href="#">Updated Data Model Settlements mapping explainer</a>	
Mon 20 Nov	<a href="#">Updated draft of the EMMS Technical Specification – Data Model v5.3 – March 2024</a>	
Wed 22 Nov	Draft Data Model 5.3 scripts published (PDSE only) and discussed at Market System User Group	
Thu 24 Nov		<a href="#">BDU focus group meeting #2</a>
Wed 29 Nov		<a href="#">IRP Information session</a>

### DECEMBER 2023

Fri 01 Dec	Three <i>draft</i> IESS industry transition plans released for industry feedback (BDU, IRP, NCC)	
Thu 07 Dec	IESS settlements information session for emerging participants	
Tue 12 Dec	IESS settlements Q&A	
Fri 15 Dec	PDSE opens for IESS settlements	

### JANUARY 2024

TBC	Q&A session on the IESS NMI classification code industry transition plan	
Fri 19 Jan	Feedback due on <b>draft IESS industry transition plans</b> <b><i>Draft</i> IESS Industry testing and market trial plan</b> released for industry comment	
Mon 22 Jan		PDSE opens for BDU bidding & dispatch

The IESS team is currently receiving a large volume of enquiries and so our response time may be longer than usual.

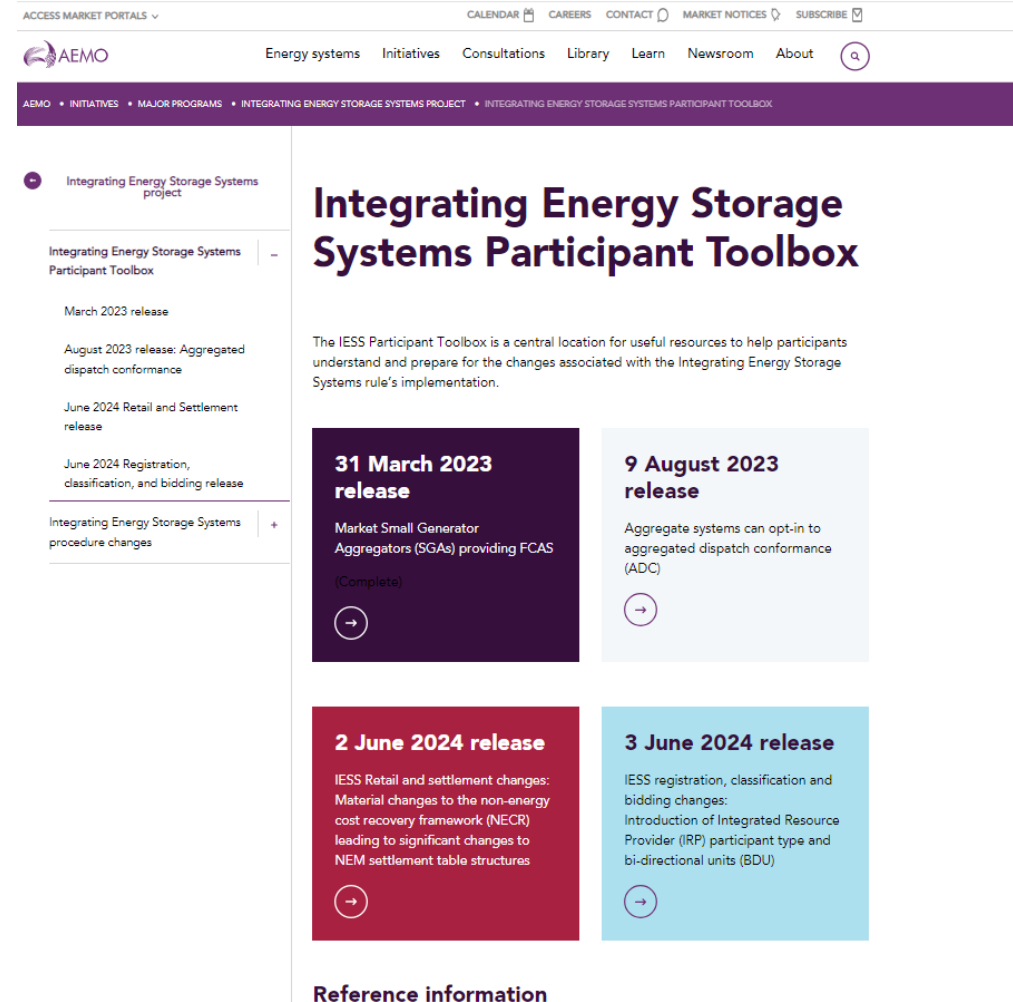
We ask that stakeholders please consider the materials and FAQs published at AEMO's website in case the response to your question is readily available.



# I ESS material

## REMINDER

Refer to the IESS participant toolbox for key project information



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### Integrating Energy Storage Systems project

- Integrating Energy Storage Systems Participant Toolbox
  - March 2023 release
  - August 2023 release: Aggregated dispatch conformance
  - June 2024 Retail and Settlement release
  - June 2024 Registration, classification, and bidding release
- Integrating Energy Storage Systems procedure changes

## Integrating Energy Storage Systems Participant Toolbox

The IESS Participant Toolbox is a central location for useful resources to help participants understand and prepare for the changes associated with the Integrating Energy Storage Systems rule's implementation.

### 31 March 2023 release

Market Small Generator Aggregators (SGAs) providing FCAS (Complete)

[→](#)

### 9 August 2023 release

Aggregate systems can opt-in to aggregated dispatch conformance (ADC)

[→](#)

### 2 June 2024 release

I ESS Retail and settlement changes: Material changes to the non-energy cost recovery framework (NECR) leading to significant changes to NEM settlement table structures

[→](#)

### 3 June 2024 release

I ESS registration, classification and bidding changes: Introduction of Integrated Resource Provider (IRP) participant type and bi-directional units (BDU)

[→](#)

**Reference information**



# June 2025 - FPP Update

Oliver Derum

# Publication of FPP high-level technical design

- Published 8 December 2023.
- Contains:
  - Succinct summary of FPP's background and intended purpose, as well as the how calculations will be done and the remaining stages of the implementation process.
  - Column names, business rules and other information about the 15 reports AEMO will provide to participants, including at the completion of each 5min calculation.
  - Information about what current reports will be altered or discontinued from 8 June 2025.
- Provided to assist participants to understand how their own systems will be impacted and commence the process of scoping, and potentially procuring, necessary changes to their systems, ahead of the release of the FPP Reports tech spec (5.3.1) in April 2024 (at which point the information can be considered final).

# Reports to be provided (as at 5 Dec '23)

- Curated 4sec SCADA data
- Regional frequency and frequency measure
- Unit performance (5min)
- Unit contribution factor
- Requirement for Corrective Response (RCR)
- Usage (of Reg FCAS)
- FPP unit estimated cost
- Estimated residual cost rate
- Default performance factor
- Pre-dispatch unit estimated cost
- P5min pre-dispatch unit estimated cost
- Pre-dispatch residual estimated cost
- P5min pre-dispatch residual estimated cost
- Summary of FCAS requirement
- FPP calculation run

# Examples of sample reports

Date and time	CONSTRAINTID	BIDTYPE	RCR	Version
20/07/2021 5:10:00	F_I+LREG_0210	LOWERREG	237.7863	1
20/07/2021 5:10:00	F_I+NIL_APD_TL_L5	LOWERREG	237.7863	1
20/07/2021 5:10:00	F_I+NIL_MG_R5	RAISEREG	211.7725	1
20/07/2021 5:10:00	F_I+RREG_0220	RAISEREG	0	1
20/07/2021 5:10:00	F_MAIN++APD_TL_L5	LOWERREG	231.4095	1
20/07/2021 5:10:00	F_T+NIL_WF_TG_R5	RAISEREG	22.2552	1
20/07/2021 5:10:00	F_I+NIL_MG_R5	RAISEREG	200	2

Sample of the RCR report (left)

Date and Time	Region ID	Frequency	Frequency Measure	Version
14/08/2023 00:05:00	TAS1	49.997	-0.01238	1
14/08/2023 00:05:00	QLD1	49.964	0.015442	1
14/08/2023 00:05:00	NSW1	49.964	0.014613	1
14/08/2023 00:05:00	VIC1	49.987	0.006758	1
14/08/2023 00:05:00	SA1	49.993	0.006007	1
14/08/2023 00:05:04	TAS1	49.973	-0.00363	1
14/08/2023 00:05:04	QLD1	49.977	0.017122	1
14/08/2023 00:05:04	NSW1	49.978	0.016255	1
14/08/2023 00:05:04	VIC1	49.963	0.013479	1
14/08/2023 00:05:04	SA1	49.965	0.01245	1

Sample of the Frequency and Frequency Measure report (right)

# June 2025: Frequency Performance Payments

## FREQUENCY PERFORMANCE PAYMENTS (FPP)

<b>Key Date(s)</b>	Go-live June 2025;
<b>Likely impacted stakeholders</b>	Generators, Market Customers
<b>Industry testing anticipated</b>	Extended period of non-financial operation for participant validation expected, Scope/approach of Industry testing TBC

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> <li>Final Primary Frequency Response Requirements procedure published 4 May.</li> <li>Final Frequency Contribution Factor Procedure published 1 June, along with the related Tuning Parameters and Input Sources document.</li> </ul>	<ul style="list-style-type: none"> <li>High Level Technical Design issued 8<sup>th</sup> December</li> <li>Data Model Technical Specification with updates for FPP reporting – April 2024</li> <li>Data Model Technical Specification with updates for FPP Settlements reporting – Sept 2024</li> </ul>	<ul style="list-style-type: none"> <li>AEMO development in Progress, and on track for NFO</li> <li>Data integration Jun to Dec 2023 (NFO)</li> <li>Settlements system development Jul to Dec 2024 (FO)</li> </ul>	<ul style="list-style-type: none"> <li>Readiness approach to be agreed Feb 24</li> <li>April-Sept 2024</li> </ul>	<ul style="list-style-type: none"> <li>FPP calculation testing Dec 2024 (non-financial operation)</li> <li>Settlements testing April 2025</li> </ul>	<ul style="list-style-type: none"> <li>Pre-prod releases 1+2 Nov 2024 (start and end)</li> <li>Pre-prod releases 3+4 start and mid-March 2025</li> <li>Prod release end May 2025</li> </ul>

<p><b>Relevant links</b></p> <p><a href="#">AEMO   Frequency Contribution Factors page (Contains Frequency Contribution Factors Procedure and Tuning Parameters)</a></p> <p><a href="#">AEMO   Frequency Contribution Factors Procedure Consultation Page</a></p> <p><a href="#">AEMO   Frequency Performance Payments project</a></p>
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# FPP- External Milestones as at 5/12/23 - Consultations

FPP Project - Level 1 & 2 Milestones (External)							
Level	Milestone ID	Milestone	Project	Target Date	Expected Date	RAG	Tentative / Confirmed
Level 1	FPP-101	Rule Determination Published - Final	FPP	8-Sep-2022	8-Sep-2022		Confirmed
Level 2	FPP-201	AEMC PFR Incentive Rule Finalised	FPP	8-Sep-2022	8-Sep-2022		Confirmed
Level 2	FPP-202	CFP Initial Paper Published	FPP	31-Oct-2022	31-Oct-2022		Confirmed
Level 2	FPP-203	CFP First Stage Submissions received	FPP	6-Dec-2022	6-Dec-2022		Confirmed
Level 2	FPP-204	PFRR Initial Paper Published	FPP	6-Dec-2022	6-Dec-2022		Confirmed
Level 2	FPP-205	PFRR First Stage Submissions received	FPP	16-Jan-2023	16-Jan-2023		Confirmed
Level 2	FPP-206	CFP Draft Determination Published	FPP	7-Feb-2023	7-Feb-2023		Confirmed
Level 2	FPP-207	PFRR Draft Determination Published	FPP	20-Feb-2023	20-Feb-2023		Confirmed
Level 2	FPP-208	CFP Second Stage Submissions received	FPP	15-Mar-2023	15-Mar-2023		Confirmed
Level 2	FPP-209	PFRR Second Stage Submissions received	FPP	21-Mar-2023	21-Mar-2023		Confirmed
Level 2	FPP-210	PFRR Requirements Consultation complete	FPP	8-May-2023	4-May-2023		Confirmed
Level 2	FPP-211	CF Procedures Consultation complete	FPP	8-Jun-2023	1-Jun-2023		Confirmed
Level 1	FPP-102	NEM Procedures Published	FPP	8-Jun-2023	1-Jun-2023		Confirmed



# FPP- External Milestones as at 5/12/23 - Delivery

FPP Project - Level 1 & 2 Milestones (External)								
Level	Milestone ID	Milestone	Project	Target Date	Expected Date	RAG	Tentative / Confirmed	Commentary
Level 2	FPP-221	High Level Technical Design (External)	FPP	15-Dec-2023	8-Dec-2023	Green	Confirmed	
Level 2	FPP-222	Participant Readiness Approach (incl. Dev Support Reqmts) published	FPP	1-Feb-2024		Green	Confirmed	
Level 2	FPP-230	Readiness Criteria available (NFO)	FPP	29-Feb-2024		Green	Tentative	
Level 2	FPP-217	Data Model 5.3.1 Tech Spec (FPP Reports)	FPP	15-Apr-2024		Green	Tentative	
Level 2	FPP-227	Industry Test Strategy (NFO) published	FPP	7-Jun-2024		Green	Tentative	
Level 2	FPP-212	AEMO Internal Testing commenced (NFO)	FPP	3-Jul-2024		Green	Confirmed	
Level 2	FPP-229	Industry Test Plan published (NFO)	FPP	2-Sep-2024		Green	Tentative	
Level 2	FPP-218	Data Model 5.4 Tech Spec (Settlement Reports)	FPP	22-Sep-2024		Green	Tentative	
Level 2	FPP-214	Participant Readiness Approach complete (Financial Operation)	FPP	1-Oct-2024		Green	Tentative	
Level 2	FPP-231	Industry Development finish (NFO)	FPP	1-Oct-2024		Green	Tentative	
Level 2	FPP-232	Readiness Checkpoint - Industry Test start (NFO)	FPP	15-Oct-2024		Green	Tentative	
Level 1	FPP-103	AEMO Internal Development & Testing complete (NFO)	FPP	22-Oct-2024		Green	Tentative	
Level 2	FPP-225	Pre-Production Release (NFO)	FPP	25-Oct-2024		Green	Tentative	
Level 2	FPP-233	Data Model 5.3.1 available in Pre-Prod	FPP	25-Oct-2024		Green	Tentative	
Level 1	FPP-104	Industry Test start (NFO)	FPP	25-Oct-2024		Green	Tentative	
Level 2	FPP-234	Industry Go-Live Plan published - draft (NFO)	FPP	4-Nov-2024		Green	Tentative	
Level 2	FPP-236	Readiness Checkpoint - Go-Live (NFO)	FPP	8-Nov-2024		Green	Tentative	
Level 2	FPP-235	Industry Go-Live Plan published - final (NFO)	FPP	18-Nov-2024		Green	Tentative	
Level 2	FPP-215	Industry Test finish (NFO)	FPP	22-Nov-2024		Green	Tentative	
Level 2	FPP-237	AEMO Internal Testing commenced (FO)	FPP	28-Nov-2024		Green	Tentative	
Level 2	FPP-238	Data Model 5.3.1 available in Prod	FPP	9-Dec-2024		Green	Tentative	
Level 2	FPP-246	Production Release (NFO)	FPP	28-Nov-2024		Green	Confirmed	
Level 1	FPP-105	Non-Financial Operations commences	FPP	9-Dec-2024		Green	Confirmed	
Level 2	FPP-223	Market Trial Strategy published (Financial Operation)	FPP	31-Jan-2025		Green	Tentative	
Level 2	FPP-224	Readiness Criteria available (Financial Operation)	FPP	31-Jan-2025		Green	Tentative	
Level 2	FPP-246	Market Trial Plan complete (Financial Operation)	FPP	9-Feb-2025		Green	Tentative	
Level 2	FPP-239	Industry Go-Live Plan published - draft (Financial Operation)	FPP	28-Feb-2025		Green	Tentative	
Level 2	FPP-240	Readiness Checkpoint - Market Trial start (Financial Operation)	FPP	28-Feb-2025		Green	Tentative	
Level 2	FPP-241	Industry Development Finish (Financial Operation)	FPP	15-Mar-2025		Green	Tentative	
Level 2	FPP-242	Data Model 5.4 available in Pre-Prod	FPP	15-Mar-2025		Green	Tentative	
Level 2	FPP-226	Pre-Production Release (Financial Operation)	FPP	14-Mar-2025		Green	Tentative	
Level 1	FPP-108	Market Trial start (Financial Operation)	FPP	17-March-2025		Green	Tentative	
Level 2	FPP-243	Industry Go-Live Plan published - final (Financial Operation)	FPP	28-March-2025		Green	Tentative	
Level 1	FPP-107	AEMO Internal Development & Testing complete (Financial Operation)	FPP	31-Mar-2025		Green	Confirmed	
Level 2	FPP-244	Readiness Checkpoint - Financial Operation	FPP	9-May-2025		Green	Tentative	
Level 2	FPP-245	Market Trial finish (Financial Operation)	FPP	20-May-2025		Green	Tentative	
Level 1	FPP-109	Production Release (Financial Operation)	FPP	4-Jun-2025		Green	Tentative	
Level 1	FPP-106	FPP Project Go-Live / Rule Commencement	FPP	8-Jun-2025		Green	Confirmed	



# 5. NEM Reform Program Stakeholder Survey

Verbal Update



# NEM Reform Program Review

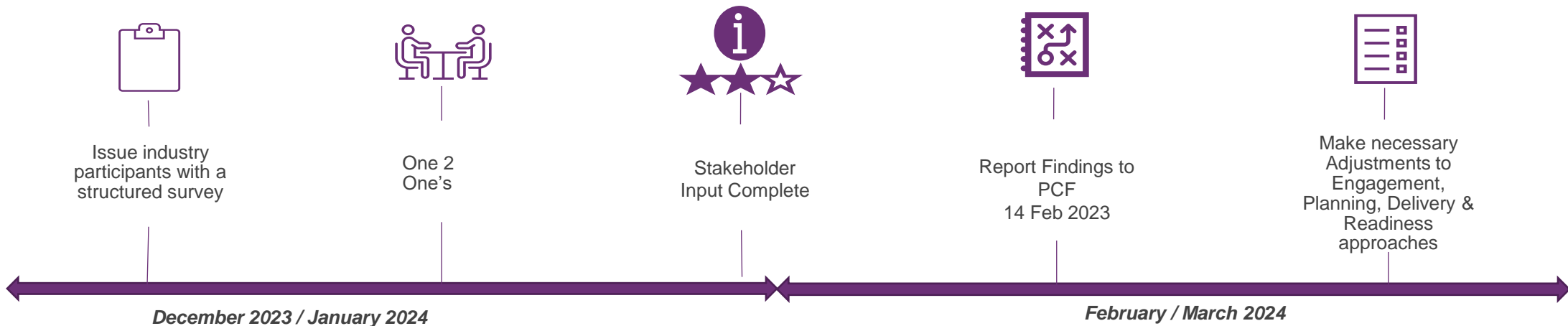
As always, please reach out to the team should you wish to provide 1:1 feedback  
[NEMReform@aemo.com.au](mailto:NEMReform@aemo.com.au)

- With 2023 wrapping up, this presents us with an opportunity to reflect on our delivery process and look for opportunities to improve the process for our 2024 delivery schedule
- AEMO intend to undertake a review of our 2023 program processes to help inform 2024 delivery processes
- The review will leverage industry insights, and include, but not be limited to, a review of our engagement, planning, delivery and readiness process

## KEY CONSIDERATIONS

- Is the current program engagement meeting its objectives?
- Is this engagement framework supporting the implementation needs of market participants?
- What else can AEMO do to support *participant delivery facilitation* objective?

## ENGAGEMENT APPROACH



# 6. Industry Risk Register

# Industry Risk Register

- AEMO has taken feedback received from participants from September PCF and incorporated into the Industry Risk Register V2:
  - Trend, Recommended Actions and Comments now included and updated for each risk
  - Residual Risk Ratings reassessed to reflect mitigation controls in place and risk trend. Noting that majority of ratings remain Medium-High (consequence of NEM Program size and complexity),
  - Key Points:
    - R1.1 – re WEM delivery congestion - recommendation to close, residual risk rating reduced to Low
    - R2.1 – Trending down – closely related to delivery congestion risks and reflecting updated AEMC timings
    - R3.1 – re Participant development timeframes - trending down as AEMO demonstrates improved practices around timely publication of artefacts
    - Risk 3.4 – new risk added based on participant feedback, trend and further actions will be incorporated based on feedback

Risk ID	title	Description	Rating		Mitigation
3.4	<b>Participant development and readiness</b>	It is difficult for Participants to say with certainty what impacts of rule/procedure changes are BEFORE rule change determination. Also difficult to address initiative sequencing adequately	Risk Rating High	Likelihood Consequence	AEMO to publish HLID / Participant Impact Assessments post Draft determination where sufficient policy direction exists to assist participant assessment of change impact  • Investigate different ways of managing scope at the point of regulatory consultation (with AEMC).  • RDC to identify opportunities to bundle / sequence and prioritise implementation. Update of Published HLID/ Participant Impact post final determination to allow participants to refine / confirm scope of initiative

- Updated Register distributed to PCF members seeking feedback Monday 4 December.
  - Summary of feedback to be included at PCF meeting
- Version will be published to AEMO website by 18/12
  - Updated to reflect feedback
  - PCF Review will be scheduled on quarterly basis
  - Exception reporting included for each PCF meeting

# 7. Noting – Commencement updates



# March 2024 Metering Exemptions

For Noting

# March 2024: Metering Exemptions

## Metering Exemptions

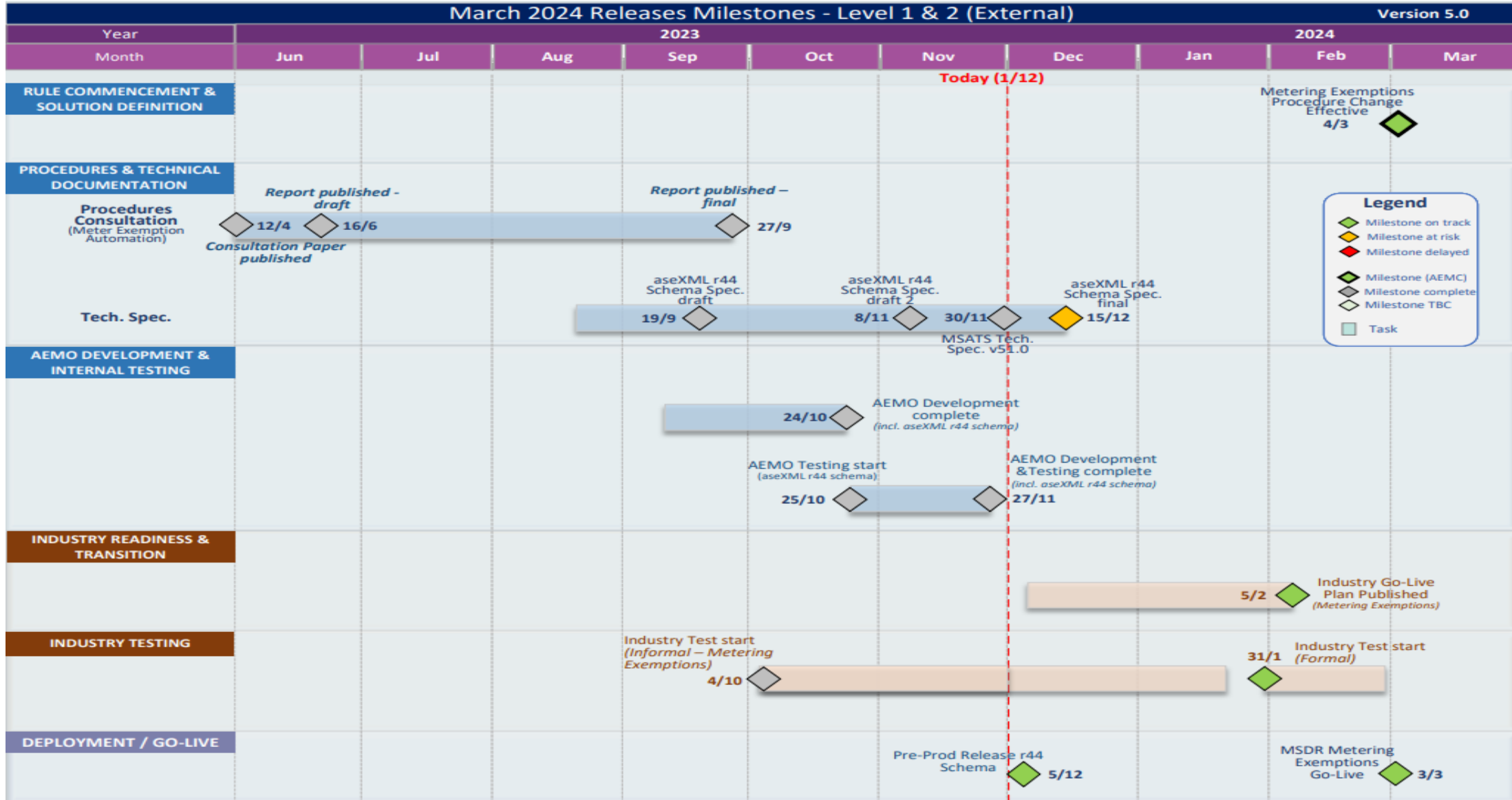
<b>Key Date(s)</b>	Go-live early March 2024
<b>Likely impacted stakeholders</b>	FRMP, MC, MP, DNSP, MDP
<b>Industry testing anticipated</b>	Industry Testing
<b>Overall status</b>	Overall <b>Green</b> , informal Industry Testing in Progress

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> <li>Metering Exemptions consultation complete               <ul style="list-style-type: none"> <li>Final Report published 27 Sept 2023</li> <li>Effective date for metering exemptions changed to 4 March 2024.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>MSATS Tech Spec to support Metering Exemptions changes have been published, includes expected aseXML changes.</li> <li>R44 B2M aseXML Schema spec to be issued 15/12 (previously 23/10) Consultation on draft completed with no implementation changes suggested</li> </ul>	<ul style="list-style-type: none"> <li>Metering Exemptions development and internal testing complete.</li> <li>AseXML schema testing completes.</li> </ul>	<ul style="list-style-type: none"> <li>Transition of current exemptions are included in AEMO cutover plans.</li> <li>Metering Exemption APIs available for Participant testing from 4 Oct.</li> </ul>	<ul style="list-style-type: none"> <li>Formal Industry test scheduled from 29 Jan</li> <li>r44 schema released to pre-prod 5<sup>th</sup> December</li> <li>API testing (informal ) commenced 4 Oct.</li> <li>Subset of current exemptions loaded in pre-prod to support Industry Test.</li> </ul>	<ul style="list-style-type: none"> <li>Metering Exemptions Procedure effective date confirmed as 4 March 2024.</li> <li>System deployment go live on 3 March 2024.</li> </ul>

### Relevant links

[AEMO | Metering Installation Exemption Automation Consultation](#)

# March 2024 Milestones Timeline





# March Retail Release – Metering exemptions External Milestones as at 01/12/2023

March 2024 - Level 1 & 2 Milestones (External)								
Level	Milestone ID	Milestone	Release	Target Date	Expected Date	RAG	Tentative / Confirmed	Commentary
Level 2	MSD-206	aseXML r44 Schema Specification published draft	March 2024	19-Sep-2023	19-Sep-2023		Confirmed	
Level 1	MSD-101	Industry Test start (Informal)	March 2024	4-Oct-2023	4-Oct-2023		Confirmed	
Level 2	MSD-208	AEMO Development complete (incl. aseXML r44 schema)	March 2024	13-Oct-2023	24-Oct-2023		Confirmed	
Level 2	MSD-210	AEMO Testing start (aseXML r44 Schema)	March 2024	16-Oct-2023	25-Oct-2023		Confirmed	
Level 2	MSD-211	aseXML r44 Schema Specification published final draft 2	March 2024	23-Oct-2023	8-Nov-2023		Confirmed	
Level 1	MSD-104	AEMO Development & Testing complete (incl. aseXML r44 Schema)	March 2024	15-Nov-2023	27-Nov-2023		Confirmed	
Level 2	MSD-215	MSATS Technical Spec. v51.0 published	March 2024	5-Dec-2023	30-Nov-2023		Confirmed	
Level 2	MSD-214	aseXML r44 Schema Specification published final	March 2024	4-Dec-2023	15-Dec-2023	Amber	Confirmed	Awaiting ASWG Approval, rescheduled
Level 2	MSD-212	Pre-Production Release - aseXML r44 Schema	March 2024	22-Nov-2023	5-Dec-2023	Green	Confirmed	
Level 1	MSD-105	Industry Test start (Formal)	March 2024	31-Jan-2024	31-Jan-2024	Green	Confirmed	
Level 2	MSD-213	Industry Go-Live Plan published (Metering Exemptions)	March 2024	5-Feb-2024	5-Feb-2024	Green	Confirmed	
Level 1	MSD-106	MSDR Metering Exemptions Go-live	March 2024	3-Mar-2024	3-Mar-2024	Green	Confirmed	
Level 1	MSD-107	Metering Exemptions Procedure Change Effective	March 2024	4-Mar-2024	4-Mar-2024	Green	Confirmed	



# September 2024 Release

For Noting

# September 2024: Retail Market Improvements

## NSLP, metering substitutions

<b>Key Date(s)</b>	29 Sept 2024, 4 Nov 2024 (TBC)
<b>Likely impacted stakeholders</b>	FRMP, MC, MP, DNSP, MDP
<b>Industry testing anticipated</b>	Industry Testing
<b>Overall status</b>	Overall <b>Green</b> Procedure Consultation in progress, Indicative milestones provided for industry guidance

Procedures	Technical documentation	AEMO Development and Internal Testing	Industry readiness and Transition	Industry testing	Deployment and go-Live
<ul style="list-style-type: none"> <li>July 2023 REMP consultation in progress               <ul style="list-style-type: none"> <li>Final report 15 December</li> </ul> </li> <li>Draft procedure effective date proposed 29<sup>th</sup> September 2024</li> <li>Industry Feedback supports 4 November effective date for metering Substitutions</li> </ul>	<ul style="list-style-type: none"> <li>Timing for Tech Spec update TBC</li> </ul>	<ul style="list-style-type: none"> <li>Indicative timeframes provided. Schedule to be finalised post Final Report</li> </ul>	<ul style="list-style-type: none"> <li>Readiness Approach to be agreed as part of execution phase</li> </ul>	<ul style="list-style-type: none"> <li>Industry Testing, with AEMO scheduling of runs to validate NSLP changes, to be confirmed as part of Readiness Approach</li> <li>Industry Testing for metering substitutions</li> </ul>	<ul style="list-style-type: none"> <li>29 September planned procedure Effective Date for NSLP (TBC).</li> <li>4 November 2024 effective date for Metering Substitutions (TBC)</li> </ul>

### Relevant links

[AEMO | July 2023 Retail Electricity Market Procedures Consultation](#)



# September – Retail Improvements – Draft 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			Green	Confirmed	
Level 2	RMI-203	Readiness Approach published	15-Feb-2024			Green	Tentative	
Level 2	RMI-204	Go-Live Criteria published	31-Mar-2024			Green	Tentative	
Level 2	RMI-205	Industry Test Strategy published	31-Mar-2024			Green	Tentative	
Level 2	RMI-206	AEMO Internal Development complete	31-May-2024			Green	Tentative	
Level 2	RMI-207	AEMO Internal Testing start	3-Jun-2024			Green	Tentative	
Level 2	RMI-208	AEMO Development & Testing complete	31-Jul-2024			Green	Tentative	
Level 1	RMI-101	Industry Test start	7-Aug-2024			Green	Tentative	
Level 2	RMI-209	Retail Market Improvements Go-Live checkpoint	15-Aug-2024			Green	Tentative	
Level 2	RMI-210	Industry Go-Live Plan published	22-Aug-2024			Green	Tentative	
Level 1	RMI-102	Retail Market Improvements Go-Live	29-Sep-2024			Green	Tentative	
Level 1	RMI-103	Net System Profile - Procedure Effective Date	29-Sep-2024			Green	Tentative	
Level 1	RMI-104	Metering Substitution - Procedure Effective Date	4-Nov-2024			Green	Tentative	

# 8. Post Implementation Program Assessment

# Preliminary assessment – How did we go in 2023 and where can we improve ?

## Stand Alone Power Systems

- Policy objectives delivered through process and system enablement. AEMO able to centrally deliver NSP responsibilities reducing overall industry costs.
- Limited industry use so far, but progress made on establishment. Certain aspects of commencement delayed.

## IESS: Contingency FCAS for SGA (Mar 2023)

- Policy objectives met. Optional for participants, all set-up costs were for AEMO. Detailed materials available for participants wishing to register. Thorough industry engagement.
- No uptake to date by participants, limited benefit delivered thus far.

## IESS: Aggregated Dispatch Conformance (Aug 2023)

- Policy objectives met. Optional for participants, all set-up costs were for AEMO, and solution delivered preferable outcome following stakeholder feedback. Thorough industry engagement
- Low uptake at present, however the reform is valuable in incentivising the important firming resources going forward.

## Fast Frequency Response

- Policy objectives met. A good example of delivering reforms at the right time and is expected to deliver significant benefits in terms of efficiently delivering system security as inertia levels decrease. Thorough industry engagement.

## Enhanced MT PASA Information

- Policy objectives met. Provides a good opportunity to uplift participant interfaces. Development of API will reduce industry costs going forward. Thorough industry engagement.

# Post Implementation Program Assessment

- Policy implementation reviews can often be the exception rather than the norm – lessons learnt are not systematically captured to inform future reforms
- **AEMO intend as part of its ongoing efforts to improve and optimise the delivery of the NEM Reform Program to complete a comprehensive assessment of individual initiatives delivered**
- Key learnings from this assessment are to be:
  - incorporated into future engagement, planning, participant delivery facilitation and industry readiness activities; and
  - shared with market bodies (and jurisdictions) to aid in ensuring energy reforms are prioritised and reform benefits or policy objectives are being met / delivered

## First initiatives to be assessed (and indicative timing)

- Increasing MT PASA Information (Q1 2024)
- Fast Frequency Response (Q1 2024)



# 9. Foundational & Strategic Initiatives

# Recap: Initiatives overview

- Foundational and strategic initiatives represent investments intended to establish secure, standardised and effective capability required for both existing and new market services.
- These initiatives have been identified for the NEM Reform Program and included in the NEM Reform Implementation Roadmap.
- A business case is being developed for implementation. AEMO is consulting with industry to define scope and timing prior to any funding decision being made.



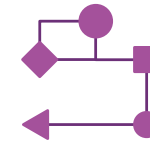
## Identity and Access Management (IDAM)

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



## Portal Consolidation (PC)

Enables a unified stakeholder experience that hosts web applications. The portals framework is an enabling platform that supports energy market participants and other partners to consume AEMO browser services in a secure manner.

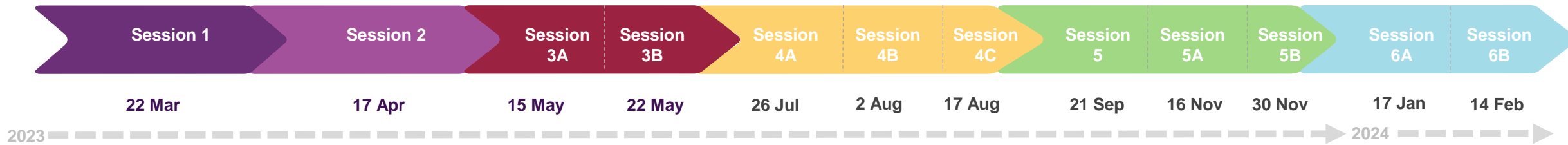


## Industry Data Exchange (IDX)

Unified access to AEMO services across the NEM, with a framework scalable to all markets. Using modern authentication and communication protocols, facilitating a cohesive approach to industry data exchange. This will leverage IDAM.

# Engagement process with industry

- Publication date for working draft business case moved to 15 December to allow for additional industry cost submission from participants.
- Final workshops with industry focus group to be scheduled for early 2024 to discuss draft business case package material.
- Opportunity for participants to review industry implementation cost ranges and provide further submission or approaches to extrapolation to better inform the business case.
- Note that implementation costs represent only one dimension of the business case; the full draft package will include operational and ongoing costs, and benefits and risks to complete the options assessment



Session	Introduction	Discovery	Target State	Transition Strategy	Cost & Method	Draft Business Case
Agenda	<ul style="list-style-type: none"> <li>• Introduce initiatives</li> <li>• Outline workshop plan</li> </ul>	<ul style="list-style-type: none"> <li>• Pain points and benefits</li> <li>• Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Concept walkthrough</li> <li>• Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Transition Strategy</li> <li>• Impacts &amp; Benefits</li> <li>• Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Industry and AEMO costs</li> <li>• Assumptions, options and methodology</li> <li>• Extension for industry costs feedback to 8 December</li> </ul>	<ul style="list-style-type: none"> <li>• Walkthrough of draft business case</li> <li>• Assessment and completion</li> </ul>

**Published information and materials:**

<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>

# Business Case Options



## Option 0: Do nothing

*Retains existing platforms in their current form.*

- Option “0” is **not tenable** due to **mandatory legislative and security requirements** for AEMO and Industry.

## Option 1: Status-quo with tactical security uplifts

*Extend the life of existing capabilities*

### IDAM:

- Minimum Viable Product (MVP) focused on addressing legislatively-driven requirements such as Security of Critical Infrastructure Act (SOCIA) and The Australian Energy Sector Cyber Security Framework (AESCSF) to enhance the security posture.

### IDX:

- Enhance all existing Data exchange mechanisms with a focus on addressing legislatively-driven requirements to strengthen the security posture
- Any new reform initiatives will define and implement only the channels, patterns, protocols and payload formats applicable to that initiative’s scope. Eg DER

### Portal Consolidation:

- Integrating IDAM MVP to address legislatively-driven requirements to enhance the security posture.

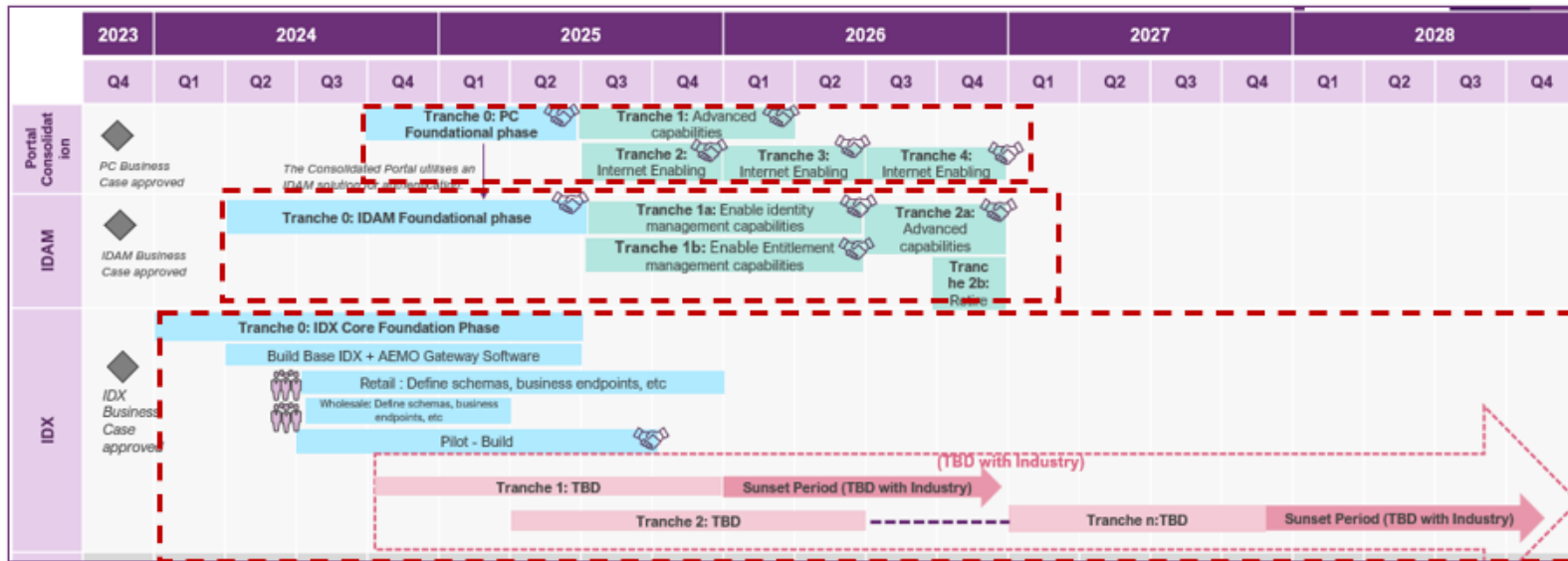
## Option 2a & 2b: Phased Investment

*Foundational capability for energy transition and industry-driven priorities*

- Establish **foundational technology capability** for **energy transition** requirements such as DER, Electric Vehicles, Dynamic Operating Envelopes, etc
- Transitional support capability over an agreed sunset timeframe to provide participants with the flexibility to determine their individual investment timing and sequence.
- A phased investment approach focused on addressing industry-driven priority areas where critical improvements are required.
- Leverages an integrated roadmap to clearly articulate investments in business services by tranche.
- Option 2a reflects target state addressing industry and AEMO pain points defined through the consultation.
- Option 2b reflects a compromised target state suggested by some participants. Does retaining data payloads. Does not fully address industry pain points, residual security risk, and operational and lifecycle costs.

# Recap: Investment Phasing and Considerations for Option 2

- With existing capability spanning multiple markets, dependencies across initiatives as well as new initiatives, a phased investment approach is proposed to identify a first cut of capability (subset of tranches) to be assessed via Business Case.
- This provides greater surety on the initial investment and timing and allows for progressive re-evaluation, bundling of capability with new initiatives (where appropriate) and accommodation of change to the transition roadmap.



## Defining the phases

- The investment phases were defined in collaboration with the industry focus group.
- For each initiative AEMO is seeking input from participants on the logical tranches to include in the phased investment case.
- Tranches excluded from the phased investment case will be the subject of subsequent investment case(s).

# Options assessment framework



Views are welcome on the approach to business case assessment.

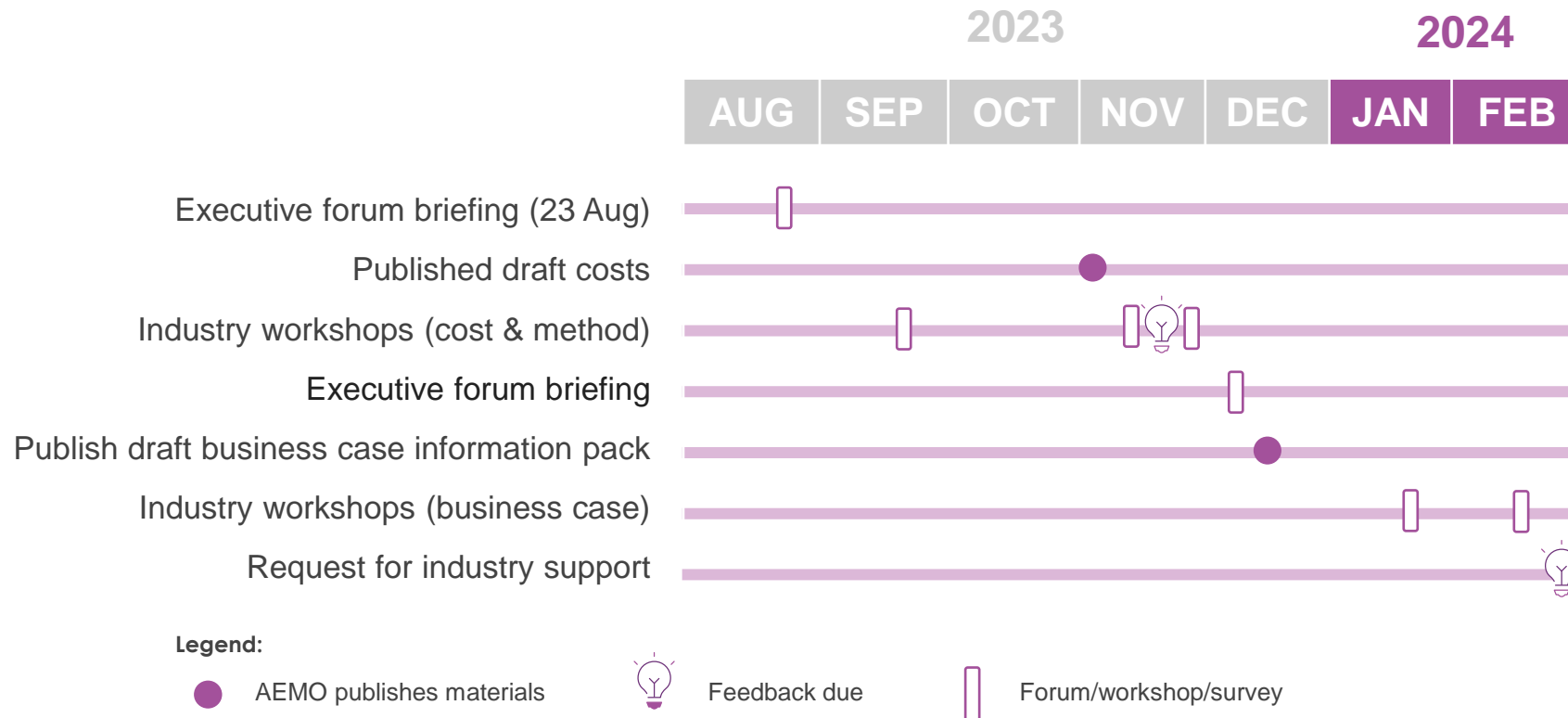
The draft business case to be published on 15 December include operational and ongoing costs, benefits and risks to inform the options assessment.

Assessment Categories	Description	Assessment Metric
<p><b>Decreased Residual Security Risk</b></p> <ul style="list-style-type: none"> <li>- Attack Surface Area</li> </ul>	<p>Higher levels of integration across the value chain have increased the complexity of the overall security landscape, as well as the impact of a potential cyber-attack. Fragmented security landscape, built over time have level of risk or potential security threats after security measures, controls, and safeguards have been implemented.</p>	<p><b>Maturity Scale 1-5</b></p>
<p><b>Deliverability of Future reforms</b></p> <ul style="list-style-type: none"> <li>- Speed to Market</li> <li>- Realisation of Benefits</li> <li>- Flexibility and Innovation</li> </ul>	<p>The highly fragmented and complex technology environment creates barriers to future reforms. It slows the speed of change, increases complexity, and incurs higher costs to transition to new fit-for-purpose solutions while supporting legacy systems through a sunset period</p>	<p><b>\$\$</b></p>
<p><b>Cost to Deliver</b></p> <ul style="list-style-type: none"> <li>- Immediate Implementation Cost</li> <li>- Cost of delivering future reforms</li> </ul>	<p>The cost to implement the different options will be assessed along with the cost to deliver future reforms</p>	<p><b>\$\$</b></p>
<p><b>Operational Cost</b></p> <ul style="list-style-type: none"> <li>- Support and Maintenance</li> <li>- Participant operational cost differential</li> <li>- “Black Swan” Events impact and recovery</li> </ul>	<p>The operational cost for the different options would be assessed</p>	<p><b>\$\$</b></p>

# Intended process - business case

This process is guided by the NEM Reform investment governance framework, agreed with the Reform Delivery Committee and published in September 2022\*:

- ❖ AEMO to put forward a recommended option.
- ❖ Broad industry support will be sought following conclusion of industry workshops.
- ❖ Industry views will inform AEMO internal governance.



- Initial workshop proposed for week commencing 15 January 2024; date TBC.
- Additional engagement with Executive forum members to be informed by industry matters raised.

# 10. NEM Reform Forums Update



# RDC November Update

- RDC had its final meeting for 2023 on 28 November
- The following provides a summary of the key agenda items including agreed actions

## Change Management & Roadmap Update

- RDC members **supported publication** of v3.1 Roadmap **accounting for several changes** including:
  - Unlocking CER benefits through flexible trading (revised DD date)
  - Integrating price response resources into the NEM (revised DD date)
  - Enhancing reserve information (revised DD date)
  - Improving security frameworks for the energy transition (revised FD date)
  - Retail market improvements (new)
  - Project Energy Connect (new)
  - Clarifying mandatory primary frequency response obligations for bidirectional plant (new)
  - Review into electricity compensation frameworks (new)

## Congestion / Prioritisation Assessment

- AEMO & RDC members discussed the extent of the congestion issue and the potential impacts to individual participant groups
- It was noted that **2025 and 2026 will be busy and challenging for all, but not unmanageable** at this time
- It was **agreed**:
  - the timing / outcomes of key rule changes or policy decisions may change this conclusion
  - a prioritisation assessment will require a suitable framework assessing the relative costs and benefits of individual initiatives
  - the Informed Go-Live date process will be utilised as the key management mechanism and applied to forthcoming reform
  - a review be completed of bundling, sequencing and participant impacts to be completed to ensure efficient delivery

## DER Holistic Review

- AEMO provided an update based on the Energy and Climate Change Ministerial Council Meeting on 24 November noting the formation of a **CER Roadmap and Taskforce** among other announcements
- A **mapping exercise** of all ESB 2021 reform initiatives, together with various industry trials and demonstration projects and jurisdictional developments was presented highlighting the linkages among them all
- It was **agreed**:
  - those initiatives on the Roadmap are to remain at this time and a wait and see approach for things to come out of the new CER Roadmap / Taskforce be taken with amendments to be made to the Roadmap as required

# Executive Forum December Update

- Exec Forum had its final meeting for 2023 on 6 December
- The following provides a summary of the key agenda items including agreed actions

## NEM Reform Program – 2023 Review and 2024 Forward Plan

- Members noted the overview of activities for 2023 and updated Roadmap with areas of focus for the program in 2024.
- AEMO requested members to provide suggestions on how AEMO could improve in term of how initiatives were delivered based on their organisation’s observations.
- There were some comments/questions from members regarding:
  - Ability for the Roadmap to cover reforms beyond 2030, particularly considering the recent Energy Minister meeting.
  - Ability for the Post Implementation Project Assessment to be formalised and ensuring a publication of findings, including measuring against the original business case.
  - Options for industry and AEMO to collectively address matters identified in the Industry Risk Register , as well as the need for AEMO to consider cost recovery within the register.

## NEM Reform Foundational & Strategic Initiatives

- AEMO noted that the draft business case will be published on the 15 December and will engage with industry for further feedback and input.
- The survey will include operational and ongoing costs and benefits.
- There were some queries regarding:
  - The range of costs identified in the business case and what these covered.
  - Also broad comments regarding the need identify and better articulate benefits as well as the costs/risks to industry from not taking any actions (do nothing).
- Agreed action:
  - Participants to work with their organisations to ensure the right people are involved to provide their organisation’s feedback when reviewing and commenting on the business case.

## Overall Program Delivery Status

- AEMO provided a program update with detailed information outlined on slide 32 of the accompanying slide pack. AEMO noted that 13 projects and 8 rule effective were delivered.
- AEMO advised that, overall, the program is tracking well from a financial perspective and added some minor variations were associated to the IESS release.

# NEM Reform Forums update



Complete updates

Channel	Current focus	Next meeting
<b>NEM Reform Electricity Wholesale Consultative Forum (EWCF)</b>	<ul style="list-style-type: none"> <li>The current focus is on regular updates for inflight reform IESS, FPP, and the strategic and foundational initiatives (IDAM IDX and PC).</li> </ul>	<b>12 December 2023</b>
<b>Electricity Retail Consultative Forum (ERCF)</b>	<ul style="list-style-type: none"> <li>The current NEM Reform focus is on considering retail and metering procedural impacts associated with the introduction of the Regulatory Framework Review of Metering Services.</li> </ul>	<b>29 January 2023</b>
<b>NEM Reform Implementation Forum</b>	<ul style="list-style-type: none"> <li>Focus on 2024 Releases – progress and implementation updates for all inflight initiatives for and 2024.</li> <li>Metering Exemptions delivery progress and Industry Testing</li> <li>IESS Transition Planning and Market Trial Plans</li> <li>FPP - Readiness Approach</li> </ul>	<b>23 January 2024</b>
<b>Information Exchange Committee (IEC) and Business-to-Business Working Group (B2BWG)</b>	<ul style="list-style-type: none"> <li>The current NEM Reform focus is on considering and preparing for the upcoming consultation regarding B2B procedural impacts associated to the Regulatory Framework Review of Metering Services.</li> </ul>	<b>23 January 2023</b>
<b>NEM Reform Industry Testing Working Group (ITWG)</b>	<ul style="list-style-type: none"> <li>Metering Exemptions commencement of formal industry Test</li> <li>IESS – Market Trial Draft plan and participant feedback</li> </ul>	<b>24 January 2024</b>
<b>NEM Reform Executive Forum</b>	Agenda: <ul style="list-style-type: none"> <li>TBC</li> </ul>	<b>5 February 2024</b>

For more information and meeting papers for the NEM Reform Program committees, forums, working groups and initiative specific please refer to the links below.

- [AEMO | NEM Reform Program Forums](#)
- [AEMO | NEM Reform Program Initiatives](#)

# 11. Upcoming Engagements

# Upcoming engagements

January						
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				

February						
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			

March						
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

April						
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					

NEM Reform Program Committees/Forums	
Executive Fourm	
Reform Delivery Committee	
Reform Delivery Committee Collaborative Workshop	
Program Consultative Forum	
Electricity Wholesale Consultative Fourm	
Implementation Forum	
Industry Testing Working Group	

Other Forums	
Electricity Retail Consultative Forum	

Other	
National Public Holiday	
State/Territory Public Holiday	

AEMO's office closure 26 Dec – 29 Dec 2023.

Note: All NEM Reform related committees, forums and working group invitations for CY2024 have been issued and are referenced on [AEMO's industry calendar](#).

# 12. General Questions and Other Business



[NEMReform@aemo.com.au](mailto: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>



# Appendix B: NEM Reform Program Engagement, Planning, Delivery and Readiness

# NEM Reform Program – 2023 delivery

Overview and description of NEM Reform Program Engagement, Planning, Delivery and Readiness processes.

## Objectives

To work **collaboratively with industry** in setting a forward view aligned with reform timelines to support individual planning and delivery activities

To **deliver effective solutions** that meet the reform objectives

To **deliver as efficiently** as possible leveraging opportunities to **bundle, sequence and prioritise** projects within the Program, and where possible identify and **drive out costs** through solution design and implementation

## Engagement

### Information channels

Media Releases, Newsroom articles, Newsletters, Website, Mailbox, infographics, Fact sheets & Tailored materials.

### Consultation channels

Industry briefing's & information sessions, Consultative forums, One 2 one meetings, Surveys

### Stakeholder involvement

Working groups and focus groups,

### Collaborative channels

EWCF, ERCF, PCF and Implementation Forum facilitate and support industry readiness

## Planning

**NEM Reform Implementation Roadmap**  
(Visibility of implementation roadmap, long-term planning, bundling, sequencing and prioritizing of initiatives)

**Reform Delivery Committee (RDC)**  
(Leverages industry insight to maintain the Implementation Roadmap)

**NEM Reform Program Governance**  
(manage implementation impacts of policy/rules changes, stage gate, investment commitment)

**Informed Go-Live Date Process**  
(High-level implementation design and participant impacts to assist in setting an informed go-live date for the Rule)

## Participant delivery facilitation

**Participant Impact Assessments & Development Timelines / Requirements**  
(identifies impacts to participants and the timeline needed for their development)

**Participant technical information**  
(Provides participants with tech spec and interface information, testing support and environments, etc)

**Participant self service**  
(timing and participant impact assessment, Self-serve videos outlining implementation design)

## Industry Readiness

**Industry readiness requirements**  
(Establish L1/L2 milestones, Readiness criteria, Readiness monitoring and reporting, Contingency Plans)

**Industry Test, Transition & Go-Live**  
(Plan and facilitate industry testing and market trial, define industry transition plans, define/manage industry-wide go-live)



For more information visit

[aemo.com.au](http://aemo.com.au)