

NEM Reform Program Consultative Forum

Meeting #7
10 May 2023



1. Welcome

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

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

Agenda

| # | Time (AEDT) | Topic | Presenter(s) |
|----|---------------|--|---|
| 1 | 1:00 – 1:05pm | Welcome | Peter Carruthers |
| 2 | 1:05 – 1:10pm | Actions & Feedback from Previous Meeting | Peter Carruthers |
| 3 | 1:10 – 1:25pm | Program & Release Update | Rowena Leung & Jim Agelopoulos |
| 4 | 1:25 – 1:40pm | May Commencement Update <ul style="list-style-type: none"> • Status Update • Assessment against Go live Criteria • Contingency plans | Meghan Bibby & Greg Minney |
| 5 | 1:40 – 2:10pm | Commencement Updates <ul style="list-style-type: none"> • May: refer agenda item 4 • August: IESS (ADC) • October: FFR, MT PASA, 5MLP • November: CDR, Metering Exemptions • June 2024: IESS • June 2025: FPP | Meghan Bibby Luke Barlow Chris Muffett Meghan Bibby Luke Barlow Oliver Derum |
| 6 | 2:10 – 2:25pm | Foundational & Strategic Initiatives <ul style="list-style-type: none"> • IDX IDAM PC | Ulrika Lindholm & Andrew Bell |
| 7 | 2:25 – 2:35pm | NEM Reform Forums Update <ul style="list-style-type: none"> • Executive Forum Update | David Reynolds |
| 8 | 2:35 – 2:40pm | NEM Reform Implementation Roadmap Update | Lance Brooks |
| 9 | 2:40 – 2:45pm | Upcoming Engagements <ul style="list-style-type: none"> • Fee Consultation Update | David Reynolds Lance Brooks |
| 10 | 2:45 – 3:00pm | General Questions and Other Business | Peter Carruthers |

Appendix A:
Competition law meeting protocol and AEMO forum expectations

Appendix B:
Go Live Criteria Management

“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

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

| # | Topic | Action | Responsible | Status |
|-------|----------------------|---|-------------|--------|
| 6.5.5 | November 2023 Update | AEMO to check distribution list for the Metering Exemptions consultation. | AEMO | Closed |

The latest meeting minutes and materials are available on the [Program Consultative Forum](#) webpage.

3. Program & Release Update

Program Update

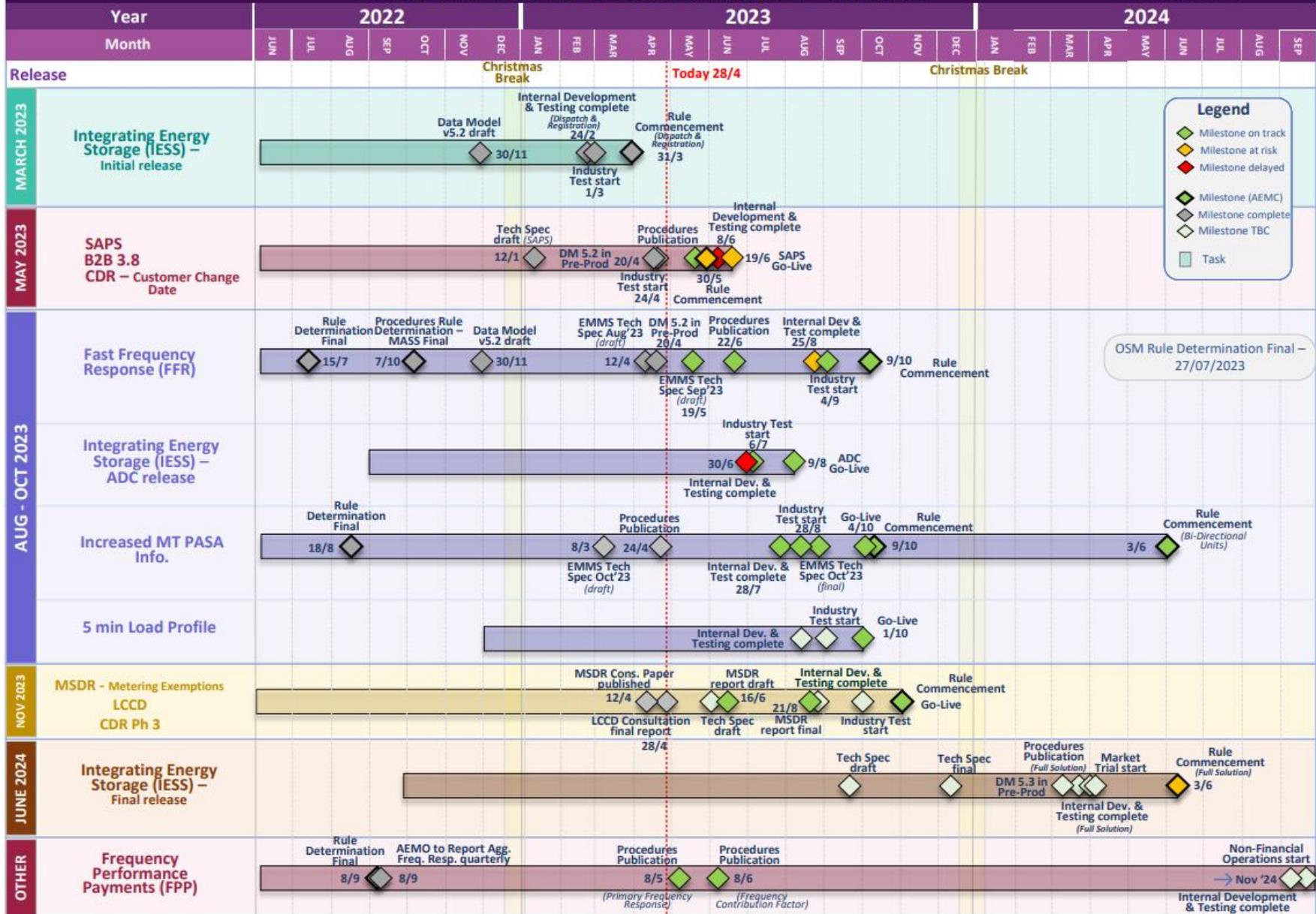
- AEMO has made the decision to delay the SAPS component of its May release to 19 June following its May 1 Go Live assessment.
- All other non-SAPS components of the May release (CDR, B2BV3.8 and ICFs) remain on track for their intended Go Live date of 30 May 2023.
- As noted at last PCF meeting key emerging project challenges relate to
 - SME capacity and environment challenges
 - Additionally, resourcing for 2023 continues as a key challenge for the project to manage

| Release | Initiatives | Status | Key Points | Impacted Stakeholders |
|---------|--|-----------|---|-------------------------------------|
| MAR-23 | Integrating Energy Storage Systems [Initial] | Delivered | Deployment successful, awaiting MSGA registrations. | Market Small Generation Aggregators |
| | SAPS MSRP Registration | Delivered | Software deployed, MSRP registration accepted from 17 Apr. | LNSP, FRMP, MP/MDP |
| MAY-23 | SAPS | | Internal Testing late, Risk assessment decision made to delay SAPS go live to 19 Jun with contingency options for any 30 May SAPS NMLs. | LNSP, FRMP, MP/MDP |
| | CDR (excluding LCCD) | | Complex API's have already been delivered to support major retailers release. | Major retailers |
| | B2B v3.8 and other ICFs | | Remains on track for 30 May 2023. | LNSP, FRMP, MP/MDP |
| AUG-23 | Integrating Energy Storage Systems [ADC] | | Delay in commencing AEMO testing. | Aggregate Systems |
| | Fast Frequency Response - Dispatch & Reg | | Delay in commencing AEMO testing. | Generators, Market Customers |
| OCT-23 | Fast Frequency Response | | Draft Service commencement plan was released 6 Apr. Delay in commencing AEMO testing. | Generators, Market Customers |
| | 5 Minute load profile | | 1 Oct go-live date confirmed. | Market Customers / FRMP |
| | Increased MT PASA Information | | Reliability forecasting guidelines have been finalised and published 24 Apr. | Scheduled Generators |
| NOV-23 | Metering Exemptions (MSDR) | | Consultation in progress to confirm 1 Nov as effective date. | MC and MP/MDP |
| | CDR (LCCD) | | Stakeholder Responses supportive to confirm 1 Nov effective date. | FRMPs |
| JUN-24 | Integrating Energy Storage Systems [Final] | | Management action required to address looming delays in development and system testing. | IRPs, NSPs, FRMP, MP/MDP, Vendors |
| JUN-25 | Frequency Performance Payments | | PFRR report on track for 8 May publication. | Generators, Market Customers |

NEM Reform Level 1&2 Milestones PoaP

NEM Reform Level 1&2 Milestones - Timeline

version 15.0



Key call outs:

- The Integrating Energy Storage (IESS) initial release and rule commencement were achieved successfully on 31/3.
- SAPS Rule commencement date deferred to 19/6
- The FFR project EMMS Tech Spec (Aug 2023) draft was published on 12/4. The EMMS Tech Spec (Sep 2023) draft is planned for publication on 19/5. Monthly releases as required are planned henceforth.
- The MT PASA final Procedures publication was completed on 24/4
- The MSDR Metering Exemptions Consultation Paper was published on 12/4. The LCCD rule commencement date has been deferred to early Nov '23.
- The FPP project Phase Gate 3 (approval to proceed to Execution Phase) will be sought on 20/4. The Procedures Publication for Primary Frequency Response is due on 8/5.

4. May Commencement Update

May 2023 commencement updates

CDR pt 2, B2Bv3.8, ICFs

| | | | | | |
|--|---|--|---|--|--|
| Key Date(s) | 30 May Commencement | | | | |
| Likely impacted stakeholders | DNSP, Retailers, MP/MDP | | | | |
| Industry testing anticipated | Industry Testing | | | | |
| Overall status | Release Status GREEN: B2B/ICFs/Schema on track , CDR (LCCD) population deferred to November. | | | | |
| Procedures | Technical documentation | AEMO Development and Internal Testing | Industry readiness and Transition | Industry testing | |
| <ul style="list-style-type: none"> Minor amendment consultation completed. CDR MSATS procedure effective date now 1 November 2023 based on risk of incorrect maintenance of LCCD with a staggered population approach. <ul style="list-style-type: none"> Changes effective date of AEMO LCCD population logic and large 3 retailers LCCD population. All retailers proposed to populate LCCD from 1 November 2023. LCCD field remains in May 2023 r43 schema. 30 May 2023 procedure consolidation exercise commenced <ul style="list-style-type: none"> Feedback due 15/5. Final Reasons Report published 29/5. | <ul style="list-style-type: none"> Final aseXML r43 schema published 16/2 (AEMO's website) MSATS V49.0 released 24/2 incorporates changes for May scope | <ul style="list-style-type: none"> AEMO Internal Testing late with UAT scenarios underway Testing schedule has been impacted by test environment availability issues and delivery delays for some components | <ul style="list-style-type: none"> AEMO readiness criteria for May components checkpoint decision made for B2B, ICFs, go live maintained as 30 May 2023. Draft Industry Go-Live Plan released 6 April | <ul style="list-style-type: none"> Industry testing is supported Pre-production live 2/5 | <ul style="list-style-type: none"> Retail software 28/5 deployment planned AEMO go-live Checkpoint 1/5 committed readiness to 30 May go live for B2B, ICFs, r43 schema. CDR for complex requests is supported from rule commencement, however some NFRs may not be met initially. |
| Relevant links | | | | | |
| AEMO Consumer Data Rights MSATS Consultation | | | AEMO B2B Procedures v3.8 | | |

May 2023 commencement updates

SAPS

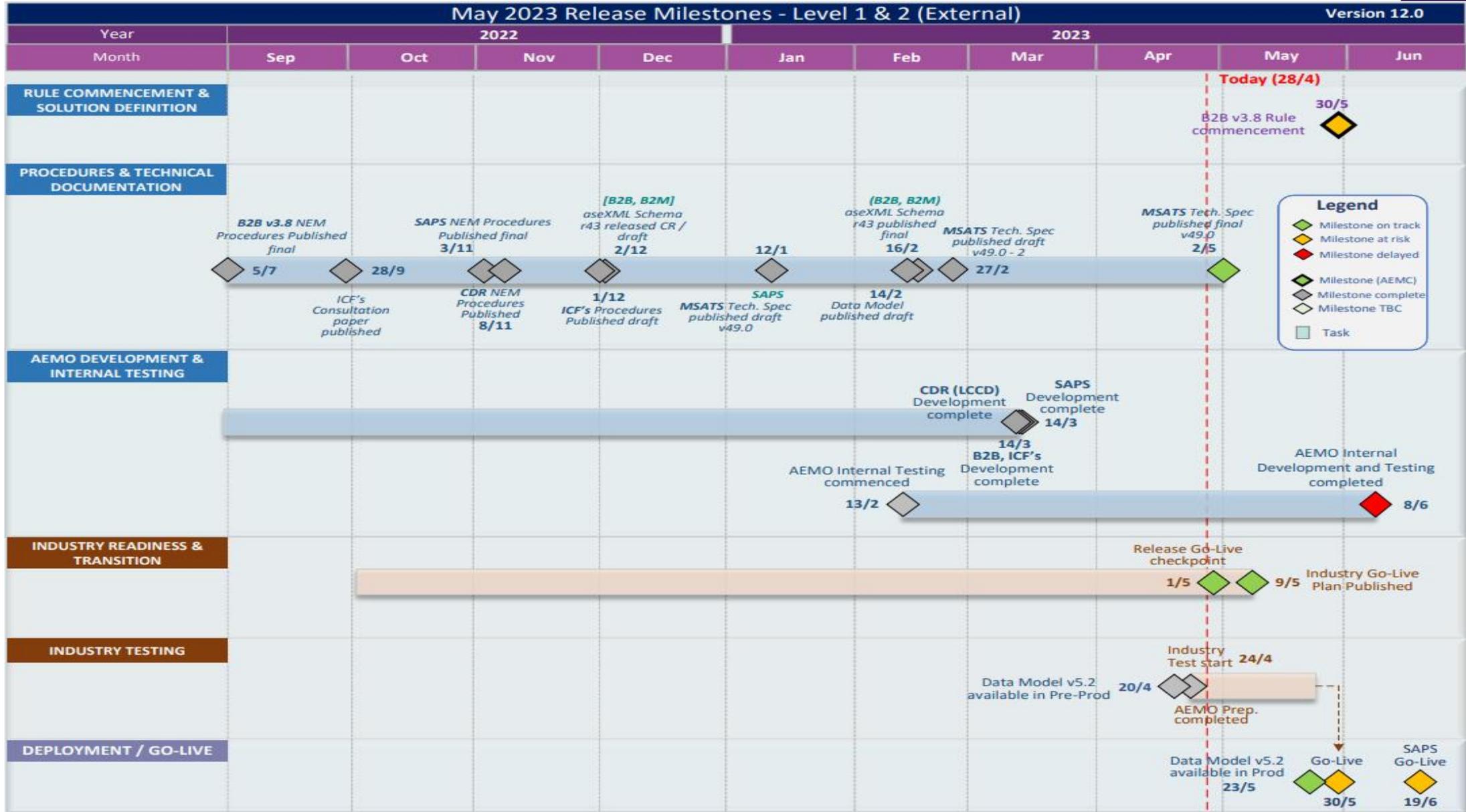
| | | | | | |
|--|---|--|--|--|---|
| Key Date(s) | 31 March SAPS MSRP Registration, 19 June Commencement | | | | |
| Likely impacted stakeholders | DNSP, Retailers, MP/MDP | | | | |
| Industry testing anticipated | Invitation Industry Testing for SAPS | | | | |
| Overall status | Release Status RED: SAPS Testing Late, go live delayed to 19 June 2023. | | | | |
| Procedures | Technical documentation | AEMO Development and Internal Testing | Industry readiness and Transition | Industry testing | Deployment and go-Live |
| <ul style="list-style-type: none"> Expedited consultation underway on SAPS. <ul style="list-style-type: none"> Addition of new report RM51 Clarify the descriptions for the RM43 and RM46 reports Republish the SLP MP Services as version 1.6 Amend the SLP MDP Services to reflect the preferred option to resolve the conversion of non-5-minute metering data as set out in AEMO's Final Report. 1 submission received in support of corrections and clarifications Final report due 26 May 2023 | <ul style="list-style-type: none"> Final aseXML r43 schema published 16/2 (AEMO's website) MSATS V49.0 released 24/2 updates released 6 April | <ul style="list-style-type: none"> AEMO Internal Testing late with Key UAT scenarios needing to be satisfied for Go-Live Criteria to be met Testing schedule has been impacted by test environment availability issues and delivery delays for some components | <ul style="list-style-type: none"> AEMO readiness criteria for May components established, contingency approaches under consideration and presented to Implementation Forum Draft Industry Go-Live Plan released 6 April | <ul style="list-style-type: none"> 3 participants identified for SAPS Invitation Industry Test Invitation Industry Testing to support SAPS implementation is expected EMMS Data Model in Pre-prod 20/4 Wholesale May release 27/5 Retail release 2 May – Rescheduled due to issue on deployment | <ul style="list-style-type: none"> SAPS MSRP registration material available 31 March 2023 with registration able to commence from 17 April Wholesale 25/5 and retail software 28/5 deployments planned AEMO go-live Checkpoint 1/5 assessed unable to go live 30 May for SAPS, committed to SAPS go live 19 June 2023 |

Relevant links

[AEMO | Standalone Power Systems \(SAPS\) – Identifying a SAPS NMI in MSATS](#)

[AEMO | SAPS Retail Procedures - Error Corrections and Clarifications](#)

May 2023 – SAPS, CDR pt 2, B2Bv3.8, ICFs



May Release Go Live Criteria Check Point

| Initiative | Criteria | Participant Readiness | Current Status 30/4 |
|---|--|--|---|
| B2B 3.8, ICF's, r43 Schema Release | AEMO Solution Tested to procedures (Disclosure of Defects to be addressed in Industry Test Period) | Individual Participant readiness to meet procedural requirements. Individual Participant readiness will not impact go live | Testing executed, defect rectification underway. Release to pre-production 2 May. |
| SAPS | Solution supports SAPS processing and no regression to current NEM settlement process, (Disclosure of Defects to be addressed in Industry Test Period) AEMO Business Ready to Support | Optional adoption, no pre-requisite participant activity | RED AEMO testing late, UAT (regression and progression) to overlap non-SAPS industry testing. |
| CDR (LCCD) | AEMO Solution Tested to procedures (Disclosure of Defects to be addressed in Industry Test Period) | No pre-requisite participant activity. November 23 procedural obligation (as per consultation) | Consultation finalised, 1 November Procedure is new effective date. LCCD will not be populated until effective date. R43 schema containing LCCD field to be released 30 May. |

May Release Contingency Options

| May Release testing Components | Test completion |
|--------------------------------|---|
| 1 | “Non SAPS” components – required for B2B, r43 Schema, LCCD |
| 2 | NEM Settlement with No SAPS activated |
| 3 | SAPS capability progression Non SAPS components plus all capability to support SAPS |

At 1/5 checkpoint

| May Release Scenario | Scenario | Approach and Implications |
|----------------------|----------------------------------|---|
| A | 1,2 & 3 Successfully completed | All Components of May Release available for Industry testing and 30 May commencement. SAPS establishment and activation commence. |
| B | 1&2 only successfully completed | “Non SAPS” components ready for Industry testing and 30 May commencement. AEMO to co-ordinate directly with intending SAPS participants on timing for pre go live testing and SAPS Activation |
| C | 1 & 2 not Successfully completed | May release deferred, AEMO to advise rescheduled for Industry testing and Go-Live |

Assessment against Criteria

| May Release testing Components | Test completion |
|--------------------------------|---|
| 1 | “Non SAPS” components – required for B2B, r43 Schema, LCCD |
| 2 | NEM Settlement with No SAPS activated |
| 3 | SAPS capability progression Non SAPS components plus all capability to support SAPS |

| Release Scenario | Scenarios | Criteria Assessment | Contingency / Option available |
|------------------|-----------------------------------|---|--|
| A | 1, 2 & 3 successfully completed | 1 Satisfied 2 Partial Completion 3 Partial Completion | Not considered viable due to lack of SAPS testing combined with 2 not completed |
| B | 1 & 2 only successfully completed | 1 Satisfied 2 Partial Completion | “Non SAPS” live on 30 May with staged implementation of SAPS and completion of regression or workaround implementation prior to 30 May to support NEM Settlement Operations. |
| C | 1 & 2 not successfully completed | 1 Satisfied 2 Partial Completion | Reschedule Full Release |

Requires risk assessment for scenario decision

Decision

- Proceed with implementing option B, maintain release date with staged introduction of SAPS
 - Risks/basis for decision:
 - BAU processes, including NEM Settlement, not sufficiently tested against SAPS changes.
 - Confidence that any new defects for non-SAPS can be completed by 30 May 2023
 - Approach
 - Release B2B, ICFs, r43 schema for 30 May 2023
 - SAPS delayed to 19 June 2023
 - UAT proceeds for both Regression and SAPS testing streams
 - Next steps:
 - Engagement with DNSPs intending 30 May 2023 SAPS commencement
 - Engagement with SAPS proponents regarding invitation industry testing

5. Commencement Updates



May 2023 Update

Refer Agenda Item 4

Meghan Bibby



August 2023 Update

Luke Barlow

August 2023: IESS

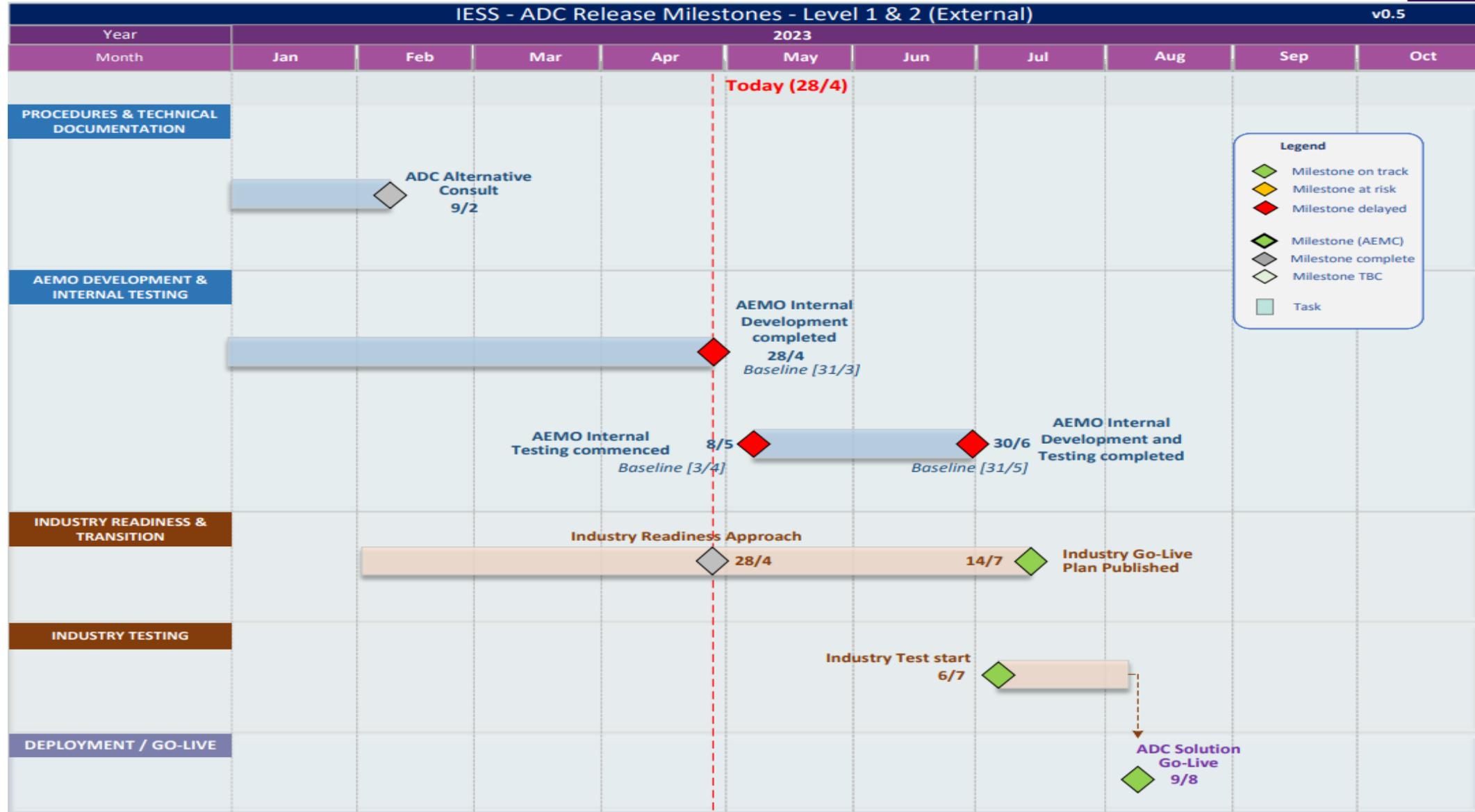
Integrating Energy Storage Systems (IESS) - Aggregated Dispatch Conformance

| | |
|-------------------------------------|---|
| Key Date(s) | Aggregated Dispatch Conformance implementation 09 Aug 2023 |
| Likely affected stakeholders | Aggregate systems, connecting NSPs, control system vendors/developers – optional to use aggregated dispatch conformance |
| Industry testing anticipated | Industry testing available |
| Overall status | Amber – Delay in commencing AEMO testing, management action required to address delays in system testing |

| Procedures | Technical documentation | AEMO development & internal testing | Industry readiness & transition | Industry testing | Deployment and go-Live |
|--|--|---|---|---|---|
| <ul style="list-style-type: none"> Procedure changes to support aggregate dispatch conformance have been completed. | <ul style="list-style-type: none"> Data Model 5.2 draft released. This release includes the updates required for ADC. No further technical updates required for ADC release. | <ul style="list-style-type: none"> Delays to completion of development and commencement of internal testing. Internal testing approach will be adjusted to accommodate this, with no expected impact to industry test readiness | <ul style="list-style-type: none"> No formal participant industry readiness or transition required. Go-Live Criteria for AEMO solution and business operations being developed for Implementation Forum confirmation. | <ul style="list-style-type: none"> Invitation industry testing will be available for those aggregate systems that choose to confirm in aggregate. Test environment expected to be available 06 Jul 2023, overlaps with FFR and MT PASA under consideration Program support via ITWG and regular Q&A sessions | <ul style="list-style-type: none"> ADC go-live date confirmed for 09 Aug 2023. Draft go-live plan release for industry comment ~Mon 19 Jun. |

| | |
|--|---|
| Relevant links | |
| Integrating energy storage systems into the NEM AEMC | AEMO Indicative change program |
| AEMO Integrating Energy Storage Systems project | AEMO Integrating Energy Storage Systems Working Group |

August 2023: IESS – Aggregated dispatch conformance





October 2023 Update

Chris Muffett

October 2023: FFR

Fast Frequency Response

| | |
|-------------------------------------|--|
| Key Date(s) | Go-live October 2023 |
| Likely impacted stakeholders | Generators, Market Customers, Traders |
| Industry testing anticipated | AEMO will be facilitating industry testing in the pre-production environment, and will involve exercising dispatch and settlement processes of the new services. |
| Overall status | Overall Amber , AEMO development in Progress, Delay in commencing AEMO testing, Procedure consultations has been finalised |

| Procedures | Technical documentation | AEMO Development and Internal Testing | Industry readiness and Transition | Industry testing | Deployment and go-Live |
|---|--|---|--|--|---|
| <ul style="list-style-type: none"> • MASS Finalised 7 October • Constraint and formulation guidelines consultation in progress, Draft published 9 March, Submissions due 12 April, with final guidelines to be published on 22 June • Constraint Implementation Guidelines was finalised on 20 April | <ul style="list-style-type: none"> • Data Model changes released in v5.2 (March 2023). Tables to remain unpopulated until capability released. Data Model 5.2 has been released in pre-prod environment • Changes to bidding, dispatch and settlement interfaces incorporated in EMMS Technical Spec updates released 12/4 | <ul style="list-style-type: none"> • Development in progress for Dispatch and Settlement updates • Emergent development schedule pressures, mitigations being undertaken however there is a risk of completion milestone not being met • Overlap of development and integration testing reflects multiple deployments • Planning for Internal testing in progress | <ul style="list-style-type: none"> • Service Commencement Plan draft released 6th April for Industry Feedback. • Finalised Plan to be issued 5 May • ASTAG presentation undertaken on 28 April • Pre-Registration technical assessments available from 1 May, to provide provisional confirmation of VF FCAS maximum capacity • Technical go-live criteria under development and will be confirmed with Implementation forum | <ul style="list-style-type: none"> • Proposed Industry testing approach provided to Implementation Forum, and ITWG. Approach and detail will continue to be developed via ITWG • Approach will involve end to end test of dispatch and settlements | <ul style="list-style-type: none"> • Changes will be deployed to production to enable registration and submission of bids for new service • Timings to be reflected in Industry Go-Live plans with Draft approaches issued mid July |

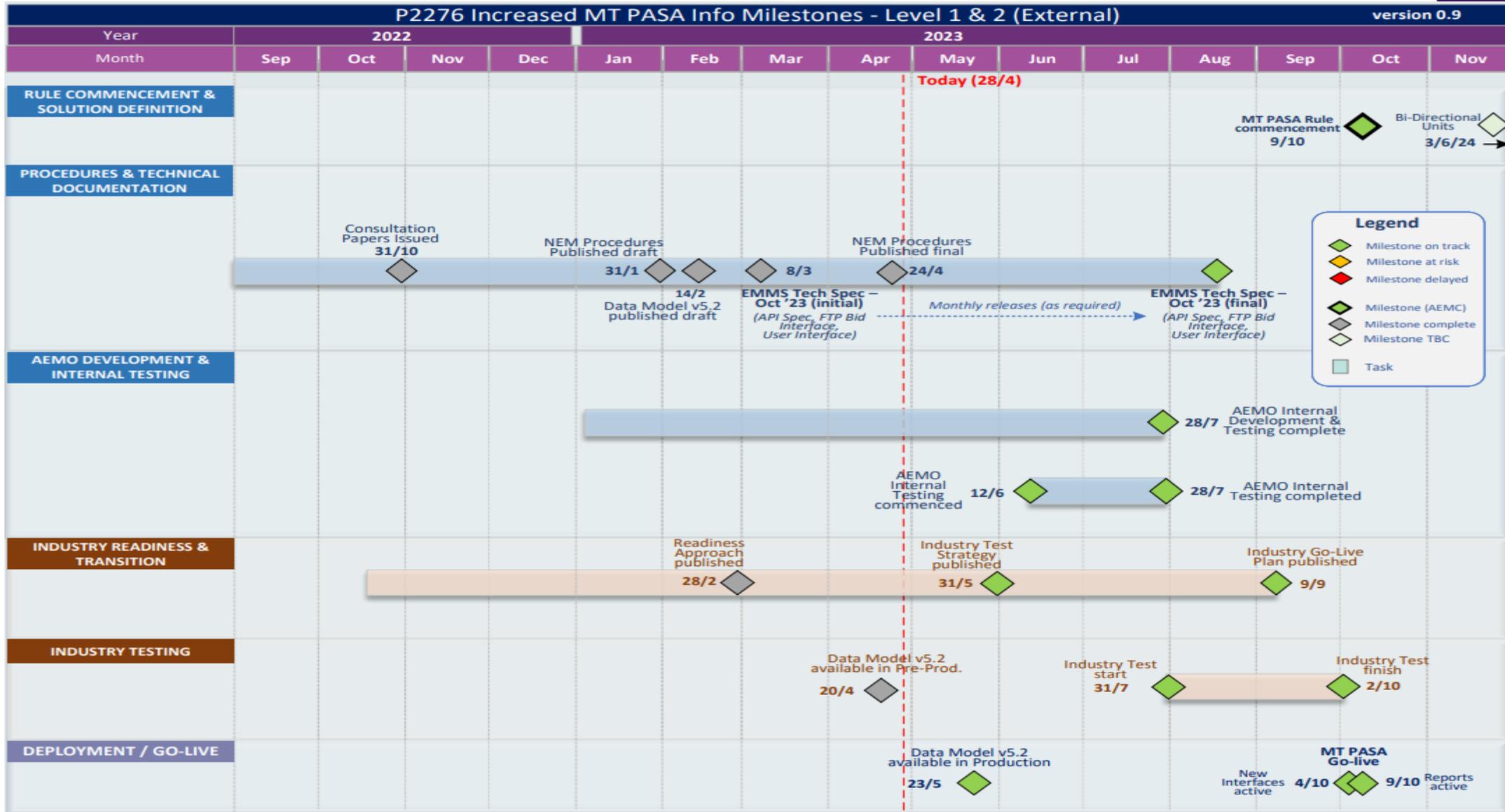
Relevant links

October 2023: Increased MT PASA Information

Increased MT PASA Information

| | | | | | |
|--|--|---|--|--|--|
| Key Date(s) | Go-live October 2023 | | | | |
| Likely impacted stakeholders | Scheduled Generators | | | | |
| Industry testing anticipated | Industry Testing in same timeframe as FFR, 5MLP | | | | |
| Overall status | Overall On Track , AEMO development in Progress, Procedure consultations finalised | | | | |
| Procedures | Technical documentation | AEMO Development and Internal Testing | Industry readiness and Transition | Industry testing | Deployment and go-Live |
| <ul style="list-style-type: none"> RSIG and Energy Adequacy Assessment guidelines consultation Final Published 28/4 | <ul style="list-style-type: none"> Data model changes for MT PASA have been included in release 5.2 of data model. Data Model 5.2 now available in Pre-prod | <ul style="list-style-type: none"> AEMO development commenced in line with overall delivery timeframes | <ul style="list-style-type: none"> Capability for participants to provide updated information will be deployed 1 week prior to rule commencement to support participant compliance at rule commencement | <ul style="list-style-type: none"> ITWG / Implementation Forum provided overview of Industry Testing approach and timeframe for MT PASA | <ul style="list-style-type: none"> Deployment dates to be confirmed. Planned deployment 4/10 (note minor change) to allow updates to MT PASA information ahead of rule commencement. Reporting capability to be deployed 9/10 |
| Relevant links | | | | | |
| Enhancing information on generator availability in MT PASA AEMC | | | AEMO NEM Reliability Forecasting Guidelines and Methodology Consultation | | |
| AEMO Amendment of the Market Ancillary Service Specification (MASS) – Very Fast FCAS | | | | | |

MT PASA Milestones and progress



October 2023: 5 Minute load profile [5MLP]

5MLP

| | | | | | |
|---|---|--|---|--|--|
| Key Date(s) | Go-live October 2023 | | | | |
| Likely impacted stakeholders | FRMPs, Market Customers | | | | |
| Industry testing anticipated | Industry Testing in same timeframe as FFR with Co-ordinated Settlement Runs | | | | |
| Overall status | Overall On Track , 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"> Consultation completed as component of ICF060 | <ul style="list-style-type: none"> No updates to technical documentation required for implementation. Current interfaces and reports remain unchanged. | <ul style="list-style-type: none"> AEMO development in progress with eMDM main component for changes. | <ul style="list-style-type: none"> Readiness activities to be defined. No transition requirements expected. | <ul style="list-style-type: none"> Industry Testing approach currently being scoped with ITWG. Industry Testing will require generation of Settlement runs and will be co-ordinated with FFR activity. | <ul style="list-style-type: none"> 1 October 2023 is procedure effective date No industry deployment required to support 5MLP. |
| Relevant links | | | | | |
| AEMO Load Profiling Methodologies Consultation | | | | | |



November 2023 Update

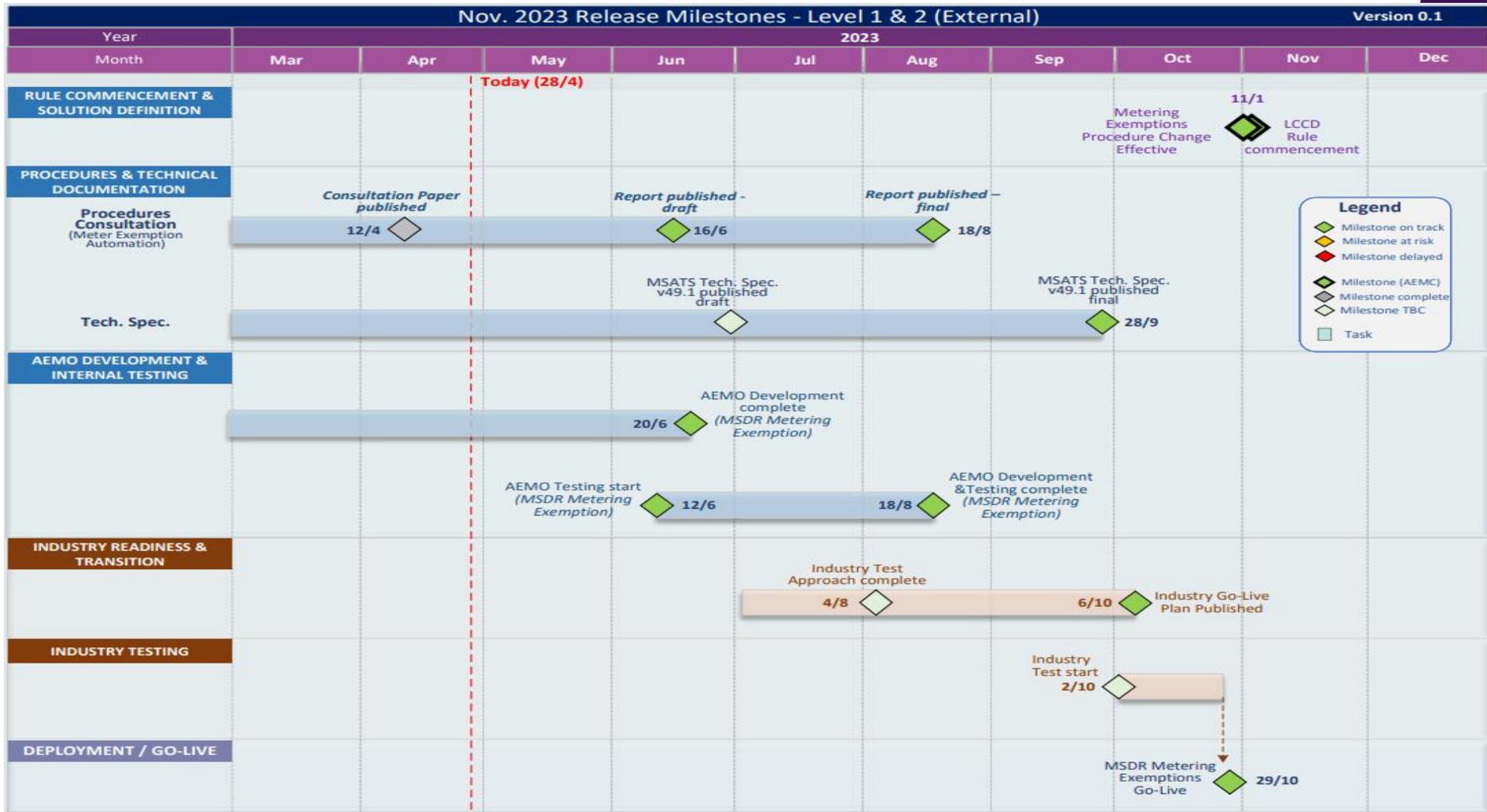
Meghan Bibby

November 2023: CDR Tranche 3 & CDR MSATS LCCD, Metering Exemptions

CDR, Metering Exemptions

| | | | | | |
|---|--|---|--|---|--|
| Key Date(s) | Go-live November 2023 (TBC for MSATS LCCD & Metering Exemptions) | | | | |
| Likely impacted stakeholders | FRMP, MC, MP, DNSP, MDP | | | | |
| Industry testing anticipated | Industry Testing (TBC) | | | | |
| Overall status | Deployment and Procedure effective dates subject to consultation | | | | |
| Procedures | Technical documentation | AEMO Development and Internal Testing | Industry readiness and Transition | Industry testing | Deployment and go-Live |
| <ul style="list-style-type: none"> Minor amendment consultation completed to delay CDR MSATS procedure effective date to 1 November <ul style="list-style-type: none"> All submissions received in support of 1 November effective date for all retailers Final report published 28/4 Consultation commenced 12 April to agree MC process impact and establish procedure effective date for Metering Exemptions changes, submissions due 12 May. | <ul style="list-style-type: none"> MSATS 49.1 Technical Specification to provide Metering Exemptions update | <ul style="list-style-type: none"> Development planning in progress for Metering Exemptions. | <ul style="list-style-type: none"> Metering Exemptions transition requirements to be established in parallel with procedure consultation Transition of current exemptions included in scope. | <ul style="list-style-type: none"> Approach to be confirmed in line with establishment of effective dates. | <ul style="list-style-type: none"> Metering Exemptions Procedure effective dates subject to consultation. CDR MSATS LCCD population aligned to CDR Tranche 3 rule commencement. MSATS LCCD field included in r43 schema release. |
| Relevant links | | | | | |
| AEMO Consumer Data Rights (CDR) MSATS Minor Amendment Proposal | | | | | |
| AEMO Metering Installation Exemption Automation Consultation | | | | | |

November 2023 Milestones Timeline





June 2024 Update

Luke Barlow

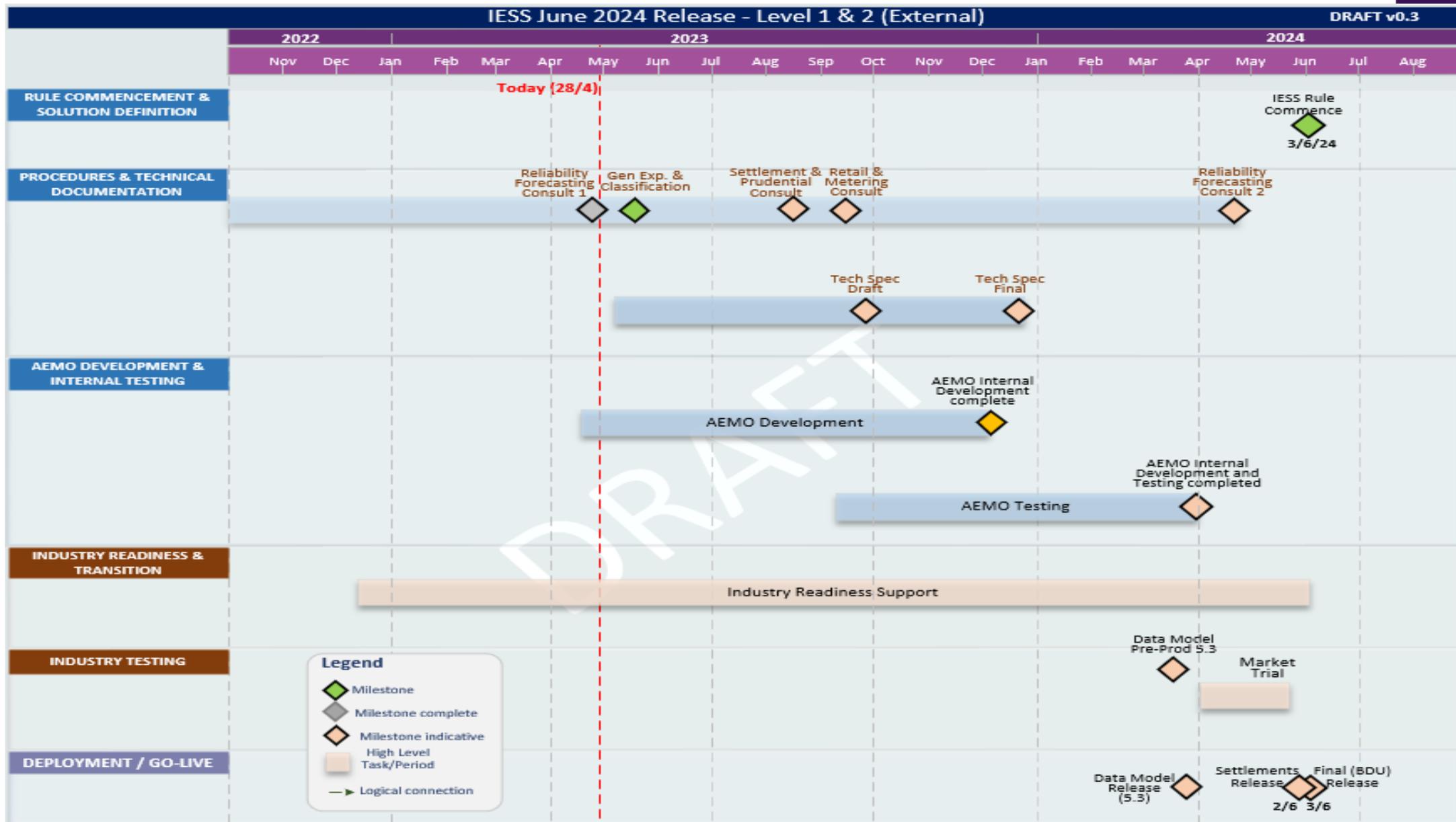
June 2024: IESS

Integrating Energy Storage Systems (IESS)

| Key Date(s) | <ul style="list-style-type: none"> NECR go-live Sun 02 Jun 2024 IRP/BDU go-live Mon 03 Jun 2024 | | | | |
|---|--|---|--|--|---|
| Likely affected stakeholders | <ul style="list-style-type: none"> Changes to non-energy cost recovery framework (NECR): Financially responsible market participants Introduction of IRP participant type and bi-directional unit (BDU) bidding, scheduling and participation: BDU participants, bidding system vendors/developers | | | | |
| Industry testing | Market Trial (TBC) | | | | |
| Overall status | AMBER – Procedures in progress, management action required to address looming delays in development and system testing | | | | |
| PROCEDURES & REGULATORY | TECHNICAL DOCUMENTATION | AEMO DEVELOPMENT & INTERNAL TESTING | INDUSTRY READINESS & TRANSITION | INDUSTRY TESTING | DEPLOYMENT & GO-LIVE |
| <p>Regulatory</p> <ul style="list-style-type: none"> AEMO submitted rule change request to align the NECR go-live with a NEM billing week (plus other implementation amendments). Final determination Thu 04 May. <p>Current procedure consultations:</p> <ul style="list-style-type: none"> IESS retail electricity market procedures Registration and Exemption Guide: Final determination ~mid May <p>Upcoming procedure consultations</p> <ul style="list-style-type: none"> Prudentials – mid May Dispatch Procedure - late May | <p>Changes to:</p> <ul style="list-style-type: none"> MSATS technical specification EMMS technical specification MMS Data model aseXML schema (version release TBC) <p>Milestones: Publication of tech spec releases to be confirmed.</p> | <ul style="list-style-type: none"> Development in progress Schedule pressures emerging in development and system testing. | <ul style="list-style-type: none"> IESS industry Readiness Approach timing and draft participant impacts discussed with Implementation Forum 26 Aug 2023. Seeking further readiness feedback, particularly on settlement impacts, via Implementation Forum. BDU model listening session held 21 Apr. AEMO to publish BDU model & stakeholder summary response and discuss at Implementation Forum 30 May. | <ul style="list-style-type: none"> Timing, duration and coverage of market trial TBC. Market Trial plan will be developed in conjunction with the ITWG. Program support via ITWG and regular Q&A sessions | <ul style="list-style-type: none"> NECR go-live date confirmed via implementation amendments rule change on Thu 04 May Go-live plans for data model releases: <ul style="list-style-type: none"> Draft Dec 2023 Final Feb 2024 |

| |
|---|
| Relevant links |
| AEMC Integrating energy storage systems into the NEM |
| AEMO Indicative procedure change program |
| AEMO Integrating Energy Storage Systems project |
| AEMO Integrating Energy Storage Systems Working Group |

IESS– June 2024



REFRESHER: IESS change to settlement energy calculation

CURRENT: Category based



IESS CHANGES: Energy direction

STRUCTURAL CHANGE TO BUSINESS PROCESSES AND SYSTEMS

$$AGE = (ME \times DLF) + UFEA$$

$$AGE = ACE + ASOE$$

Where:

AGE = adjusted gross energy

ME = metered electrical energy

DLF = distribution loss factor

UFEA = unaccounted for energy allocation

AGE = adjusted gross energy

ACE = adjusted consumed energy amount

$$= (ME_{-} \times DLF) + UFEA$$

ASOE = adjusted sent out energy amount

$$= (ME_{+} \times DLF)$$

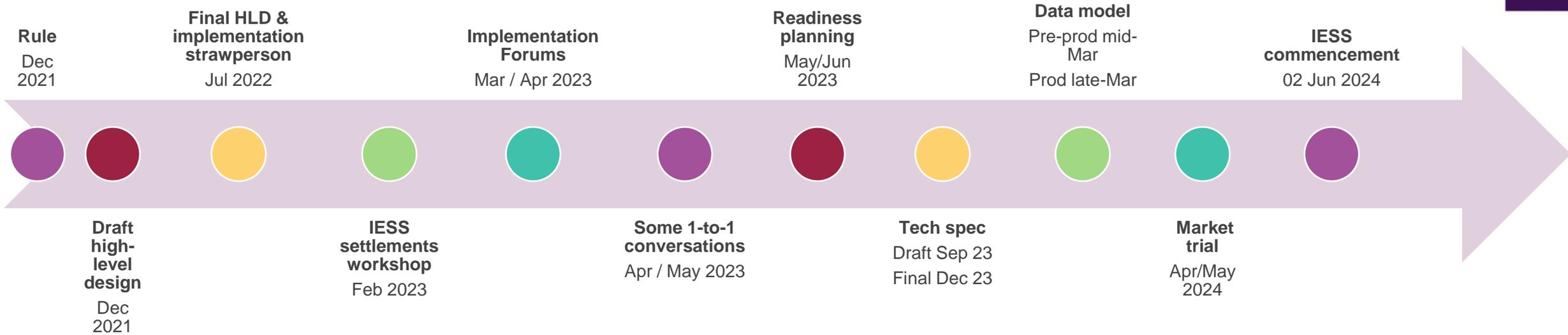
IESS settlement impacts to participants

| SYSTEM | KEY CHANGES |
|------------------------------|---|
| Wholesale settlements engine | <ul style="list-style-type: none"> ➤ Receive and store aggregated consumed and sent out metering data to replace existing generation and load data ➤ Settle each NMI on a consumed energy and sent out energy basis ➤ Implement new non-energy recovery calculations based on consumed and sent out energy |

| CURRENT TABLE NAME | INDICATIVE REPLACEMENT TABLE NAMES |
|--------------------------|--|
| SETCPDATA | SETTLEMENTS.ENERGY_TRANSACTIONS |
| SETGENDATA | |
| ENERGY_GENERATOR_AGG | |
| SETCPDATAREGION | SETTLEMENTS.ENERGY_REGION_SUMMARY |
| SETGENDATAREGION | |
| ENERGY_CUSTOMER_SUMMARY | SETTLEMENTS.ENERGY_TRANSACTION_SUMMARY |
| ENERGY_GENERATOR_SUMMARY | |
| BILLINGCPDATA | BILLING.ENERGY_TRANSACTIONS |
| BILLINGGENDATA | |
| DAILY_ENERGY_SUMMARY | BILLING.ENERGY_DAILY_SUMMARY |



IESS settlements timeline



Participant feedback

What we're hearing

- Settlement **impacts are greater** than initially realised
- **Potentially considerable impacts in other operational areas** that draw data (directly or indirectly) from the SETGEN and SETCP settlement tables e.g. forecasting, strategy

What we need - input into readiness

Via Implementation Forum, seeking feedback on:

- Settlement impacts
- Level of interest in a further IESS settlement information session
- Indicative timing for readiness documents
- Completeness and accuracy of participant impacts
- Areas for further consideration

Have requested response on or before Fri 19 May
via iess@aemo.com.au

Next steps

- Participant feedback will help inform milestone timing for:
 - Draft technical documentation
 - Industry readiness support (tech specs, data model releases)
 - Market trial plan
 - Transition and go-live plans
- AEMO will send further email request for feedback this week to PCF and Implementation Forum

Reference information links

AEMC

- [IESS rule change](#) (Dec 2021)
- [Implementing IESS rule change](#) (May 2023)

AEMO

- [IESS High Level Design and Implementation Strawperson](#)
- [IESS Participant Toolbox](#)
- [IESS Settlement Workshop \(21 Feb 2023\)](#)
 - Worked examples and mock-ups for Energy and Non-Energy IESS changes
- [Implementation Forum](#) material:
 - [March 2023 pack](#)
 - Industry readiness approach for IESS June 2024 release
 - [April 2023 pack](#)
 - Draft participant impact assessment for industry review and comment



June 2025 Update

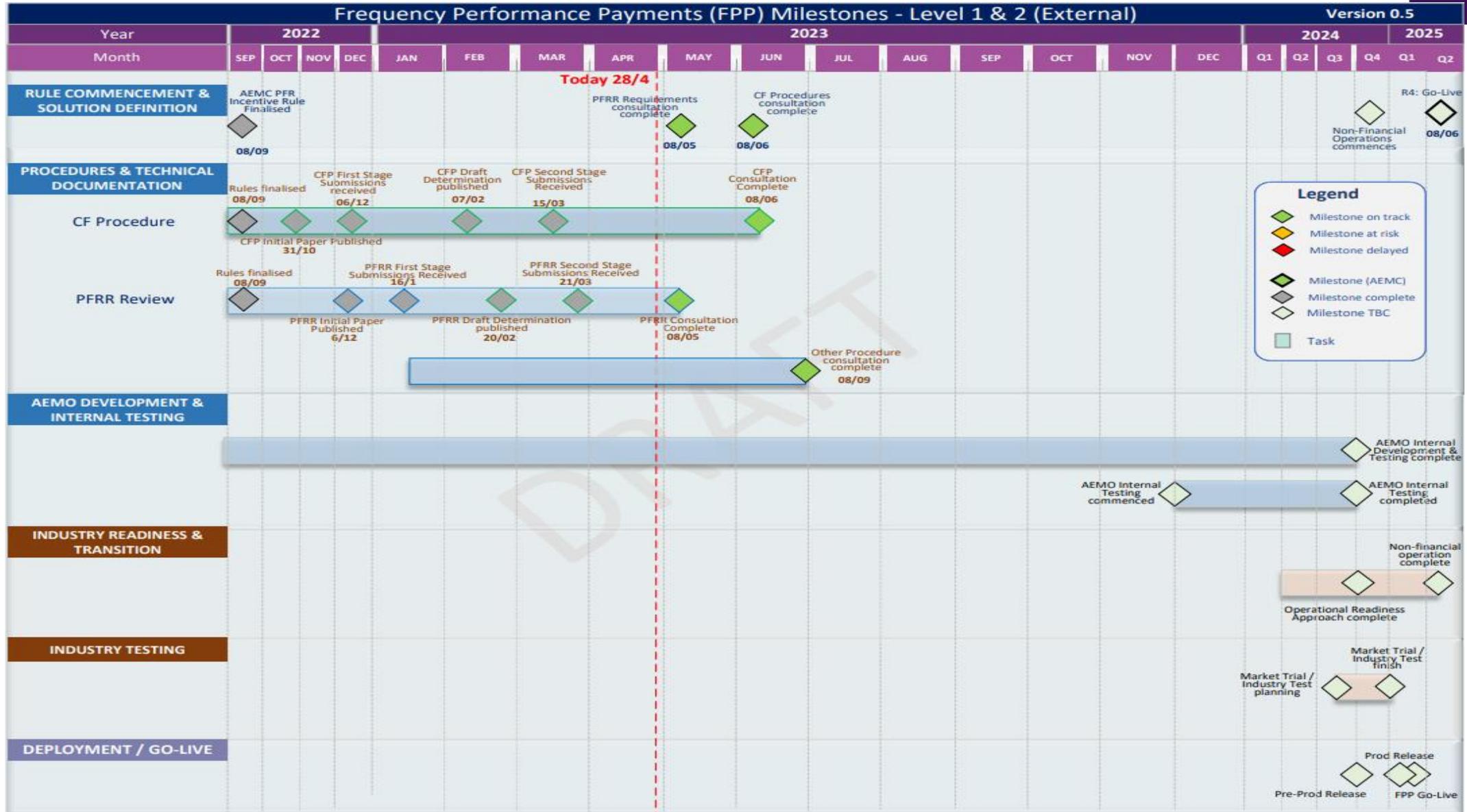
Oliver Derum

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, 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"> Final Primary Frequency Response Requirements procedure published 4 May. Final Frequency Contribution Factor Procedure now being prepared, for release by 8 June 2023. | <ul style="list-style-type: none"> Data Model Technical Specification with updates for FPP reporting – Jul 2024 Data Model Technical Specification with updates for FPP Settlements reporting – Nov 2024. | <ul style="list-style-type: none"> Data integration Jun to Dec 2023 Settlements system development Jul to Dec 2024 | <ul style="list-style-type: none"> April-Sept 2024 | <ul style="list-style-type: none"> FPP calculation testing Dec 2024 (non-financial operation) Settlements testing April 2025 | <ul style="list-style-type: none"> Pre-prod releases 1+2 Nov 2024 (start and end) Pre-prod releases 3+4 start and mid March 2025 Prod release end May 2025 |
| Relevant links | | | | | |
| AEMO Frequency Performance Payments project | | | | | |

FPP- June 2025



6. Foundational & Strategic Initiatives

Industry Consultation



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

Initial insights from the consultation

Below is a summary of the key pain points with the legacy IDAM from focus group discussions at the 17 April Discovery workshop. These pain points are not ranked.

Participant Admin (PA) experience

- Perform **repetitive tasks** e.g., creation of roles, unable to inherit the roles from an existing set
- Lack of ability to **identify inactive, unused, and suspicious accounts**
- Inability to set **expiration dates for user access** to automatically revoke access upon expiration
- Lack of **reporting capabilities** to conduct **periodic assessments**
- Inability to **automate user offboarding**, resulting in increased risk of unauthorised access and security risks
- Need to extend **PA** concept to **other markets**

Management of Service Accounts

- **Multiple user credentials** are required to access AEMO systems
- **Multiple access controls** to access AEMO systems
- **Multiple AuthN patterns** e.g., API keys, Basic Auth and OAuth
- Inadequate capabilities for **managing password changes** e.g., the use of shared credentials across multiple applications necessitating concurrent change
- Lack of **designation of account to a specific AEMO environment** such as pre-production or production

User experience

- **Multiple credentials** required to access different AEMO systems
- **Lack of integration between the Participant's organisation and AEMO's identity store (Federation)**
- Inadequate **self-service capabilities** e.g. Password reset, consent management, etc
- Inadequate training material, support, and documentation to support the complex user management landscape

Security, Governance and Compliance

- Lack of the visibility of the **audit trail to monitor significant identity and access management services**
- Need for **Multi-Factor Authentication (MFA)** to enhance security by requiring multiple forms of authentication, such as tokens, SMS verification, fingerprint or facial recognition (Windows Hello), and authenticator apps

Future Needs and capabilities

- **Context based authentication** - Dynamic risk assessment is embedded into the access decision by calculating risk using user behaviour and context analytics to protect against stolen credentials
- Explore data sharing capabilities in markets beyond NEM

Next steps: Target State Workshops

15 May: SESSION 3A - Target State Proposal for Technical Focus Group

22 May: SESSION 3B - Target State Discussion for Business Focus Group

ACTIONS

- Materials shared by AEMO in advance of the workshops:
 - Target state workshop meeting pack
 - Results from the Industry pain points and benefit survey for IDAM and PC
- Focus Group members are asked to prepare for the workshop as follows:

Content considerations:

- Review and discuss proposed Target State internally ahead of the workshop

Administrative items:

- RSVP to calendar invite
- Indicate to AEMO if you wish to attend in person in Melbourne

7. NEM Reform Forums Update

NEM Reform Forums update

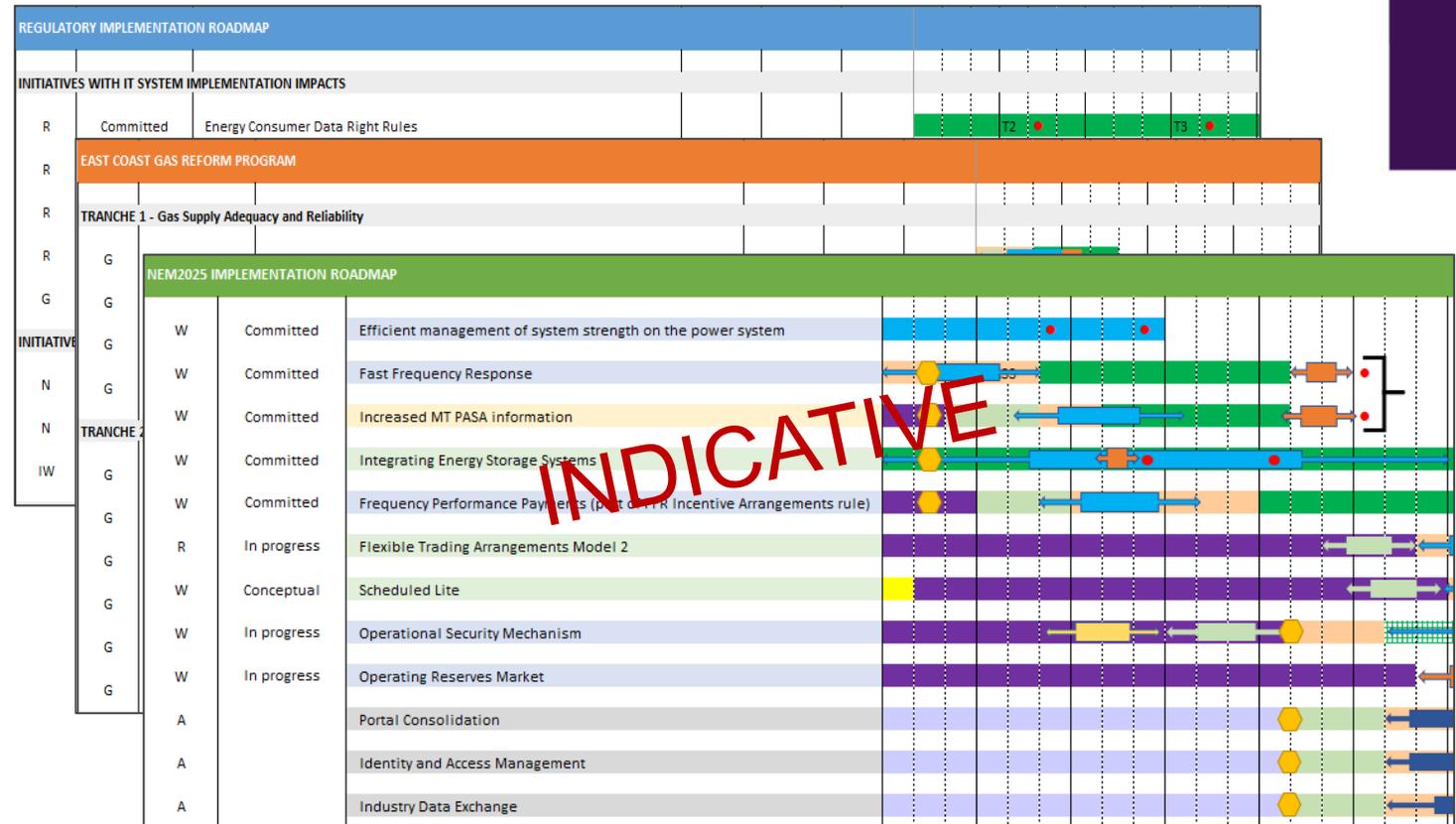
| Channel | Current focus | Next meeting |
|--|---|-------------------|
| NEM2025 Electricity Wholesale Consultative Forum (EWCF) | <ul style="list-style-type: none"> The current focus is on regular updates for inflight reform IESS, FFR, FPP, MT PASA, the Procedures Consultation Roadmap, and the strategic and foundational initiatives (IDAM IDX and PC). AEMO provided advice on high-level registration timeframes for VF FCAS and encouraged stakeholder feedback on our draft service commencement plan. | 16 May 2023 |
| NEM2025 Industry Testing Working Group (ITWG) | <ul style="list-style-type: none"> The ITWG is progressing with outlining the scope and approach to May release testing The forum is outlining indicative testing approaches for September and October Releases | 25 May 2023 |
| Electricity Retail Consultative Forum (ERCF) | <ul style="list-style-type: none"> This Forum maintains a watching brief on NEM Reform Program initiatives associated with metering and retail procedural impacts. NEM Reform scope focused on formal consultation progressing on retail and metering procedures under IESS and a spotlight update on industry consultation on IDX/IDAM/PC. | 22 May 2023 |
| NEM2025 Implementation Forum | <ul style="list-style-type: none"> Focus on 2023 Releases – progress and implementation updates for all inflight initiatives Discussion of the May release and contingency approaches Spotlight discussion on the IESS June participant impacts. | 30 May 2023 |
| NEM2025 Executive Forum | <ul style="list-style-type: none"> Targeting Q3 (August 2023) Agenda to focus on: <ul style="list-style-type: none"> NEM Reform Industry Impact, readiness and mobilisation through the reforms Project budget status reporting | August 2023 (TBC) |

For more information and meeting papers for each of the forums, please refer to the [NEM Reform program](#) website.

8. NEM Reform Implementation Roadmap Update

NEM Reform Implementation Roadmap (v2) published

- AEMO, in collaboration with the **Reform Delivery Committee (RDC)**, has now published Version 2 of the NEM Reform Implementation Roadmap
- Version 2 of the Roadmap **re-baselines the plan** for implementation of reform in the energy market by accounting for key changes in scope and/or timing of initiatives
- AEMO has published updates to the various supporting artifacts including:
 - Initiative Briefs,
 - Business Case,
 - Program Scope, and
 - Governance Arrangements
- AEMO and the RDC will continue to review for efficiency opportunities including **bundling, sequencing and prioritisation** of initiatives, and opportunities to **take cost out** of industry



AEMO is hosting a general stakeholder briefing on the NEM Reform Program and Implementation Roadmap Thursday 11 May

9. Upcoming Engagements

Upcoming Engagements

| May | | | | | | |
|-----|----|----|----|----|----|----|
| S | M | T | W | T | F | 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 | | | |

| June | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | 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 | |

| July | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | 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 | | | | | | |
|--------|----|----|----|----|----|----|
| S | M | T | W | T | F | 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 Forums |
|---|
| Program Consultative Forum |
| Reform Delivery Committee |
| Reform Delivery Committee - Collab W. |
| Implementation Forum |
| Electricity Wholesale Consultative Forum |
| Electricity Retail Consultative Forum |
| Industry Testing Working Group |
| AEMO Consumer Forum |
| NEM Reform General Stakeholder Briefing & Implementation Roadmap Briefing |
| Initiative Specific Meetings |
| NEM Reform Foundational and Strategic initiatives |
| May Go-Live Criteria |
| Other |
| National Public Holiday |
| State/Territory Public Holiday |

To learn more about these events, please visit AEMO's [Industry meeting calendar](#) or contact the program at NEMReform@aemo.com.au.

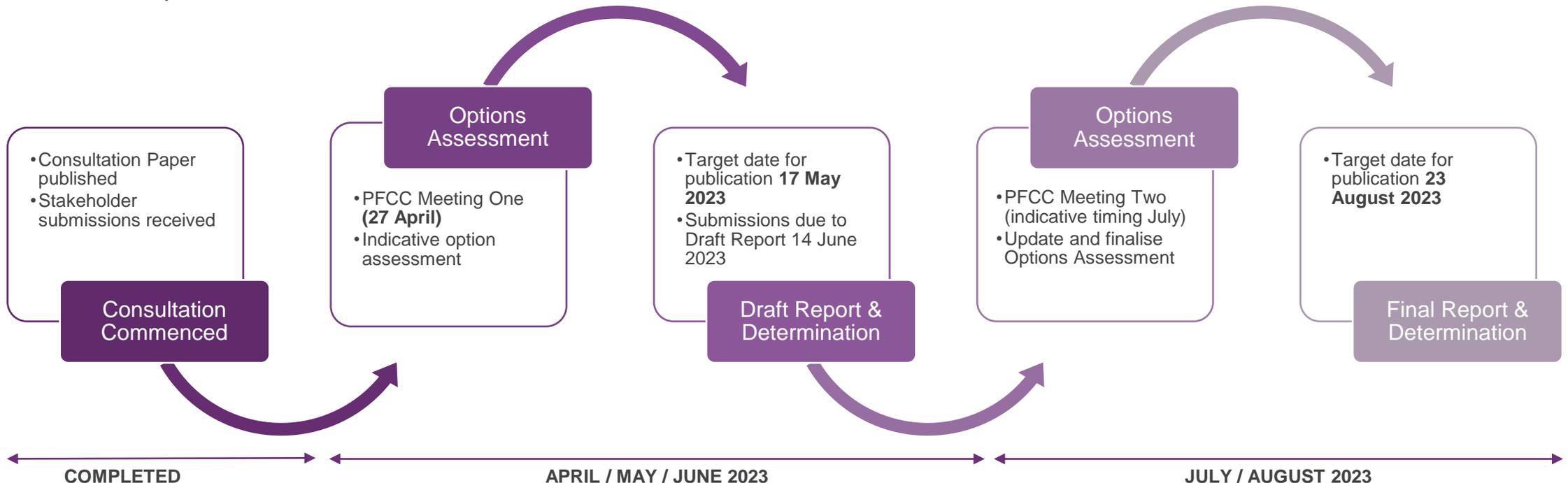


Fee Consultation Update

Lance Brooks

Participant Fee Structure for the NEM2025 Reform Program Declared NEM Project

- AEMO is conducting a consultation on the determination of the Participant Fee structure for the NEM 2025 Reform Program declared NEM project. The NEM 2025 Reform Program was determined a declared NEM2025 Reform Project on 29 September 2022 following a consultation process
- In April, AEMO held its first meeting with the **Participant Fee Consultative Committee** to discuss key issues and potential fee structure options



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 regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions **must**:

- Ensure that discussions are limited to the matters contemplated by the agenda for the discussion
- Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO
- Immediately and clearly raise an objection with AEMO or the Chair of the meeting if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

Participants in AEMO meetings **must not** discuss or agree on the following topics:

- Which customers they will supply or market to
- The price or other terms at which Participants will supply
- Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
- Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)
- Refusing to supply a person or company access to any products, services or inputs they require

Under no circumstances must Participants share Competitively Sensitive Information. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

Appendix B: Go Live Criteria Management

NEM 2025 Reform Program

Industry Readiness principles

1. All NEM2025 Initiatives will have an established readiness approach to support participant implementation and the criteria against which go-live decisions will be made. Readiness to Go-Live decisions are to be made on an Initiative basis
 1. Approach to Initiative Readiness will be documented in Initiative Readiness Approach
2. Readiness Criteria will be reported to Industry transparent and consistent manner, allowing for difference in level of detail and emphasis for scale and impact of individual initiatives
3. Initiative readiness will address both the implementation of the initiative and the NEM continuing to operate with integrity
4. AEMO will be responsible for their operational readiness to support initiatives at go live and the readiness of systems upgrades required
5. Market participants will be responsible for their own preparations and readiness for those initiatives that impact their business. The AEMO program will facilitate and support those preparations as a component of the program delivery in-line with agreed readiness approach
6. Where individual initiatives are implemented at the same time, readiness aspects should reflect the combined delivery impact of those initiatives

NEM 2025 initiative readiness assessment principles

- External Milestone reporting to provide guidance to Industry Participants regarding Initiative progress
 - Once baselined, a proposed shift to Milestones will require Industry Impact assessment
- Initiative Readiness Criteria will be established for each initiative addressing Solution, AEMO and Industry aspects:
 - Criteria and contingency approaches will consider the optionality and complexity of initiatives
 - Implementation forum will be point of industry engagement for development and management of criteria
 - Contingency planning and risk mitigation approaches are to be applied against criteria to provide AEMO readiness assessment to industry
 - Contingency options to include rule change to commencement date to maintain integrity of NEM operations
 - Progressive assessment of readiness criteria and contingency options must take into account timeframe for option implementation
 - Where Participant readiness, or completion of participant activity is considered a “go-live” criteria, participants reporting will be required to support assessment and status (Mandatory)
 - Participant readiness reporting to be considered where lack of participant readiness would impact smooth operation of market and Business functions, although would not halt rule implementation (Desirable)
 - Readiness Criteria (in the case of service introduction) may distinguish technical/ solution readiness and service introduction criteria
- Initiative Readiness checkpoint (Solution, AEMO Business & IT and where relevant Participant) prior to the scheduled commencement of the Industry Test / Market Trial period to provide participant certainty on readiness and implementation timings



AEMO



For more information visit

aemo.com.au