

5MS & GS Program Consultative Forum #21

Tuesday, 5 May 2020 This meeting is recorded for the purpose of minute taking.

Agenda

No	Time (AEST)	Agenda item	Presenter			
1	10:00 - 10:05	Welcome and Apologies	Peter Carruthers			
2	10:05 – 10:10	Meeting Notes and Actions	Anne-Marie McCague			
3	10:10 - 10:40	Program Update	Rowena Leung			
4	10:40-11:00	AEMO Internal Systems Delivery: Settlements and Dispatch Date Change Proposal	Graeme Windley			
5	11:00 – 11:05	Readiness Reporting Round 2	Greg Minney			
6	11:05 – 11:15	Industry Risks and Issues Register - Covid-19 Risk – Readiness Report	Greg Minney and Anne-Marie McCague			
7	11:15 – 11:45	Rule change: Proposed 12-month deferral	Numerous			
	Break					
8	11:55 – 12:05	Readiness Workstream Update	Greg Minney			
9	12.05 – 12:15	Systems Workstream Update	Graeme Windley			
10	12:15 – 12:20	Forward Meeting Plan	Anne-Marie McCague			
11	12:20 – 12:30	General Questions	Peter Carruthers			
12	12:30	Meeting Close	Peter Carruthers			



Welcome and apologies

Peter Carruthers



Meeting Notes and Actions

Peter Carruthers



Program Consultative Forum - Actions

Item	Action required	Owner	Update
20.3.1	AEMC to circulate the list of rule changes that would be impacted by the proposed 5MS rule change - to delay the 5MS implementation by 12 months to PCF members.	AEMC	The AEMC has completed an initial review of the implications of the proposed rule change. They have advised that this rule change is unlikely to have meaningful policy implications on other rule changes that have been made, but there are some legal drafting matters that will need to be accounted for when preparing the changes to the clauses in the NER. Further detail will be provided in the AEMC's consultation paper.
20.3.2	Participants to email the <u>5MS@aemo.com.au</u> inbox with any questions to be considered as part of the impact analysis to be undertaken by each working group.	Participants	Ongoing – FAQ document circulated to Working Groups 27 April. Q&A Session moved to 7 May.
20.3.3	5MS working groups to consider and report back to the PCF the impact of the 12 month deferral on the workstreams.	AEMO	Ongoing – plan to be presented during PCF
20.3.5	AEMO to update the Industry Risks and Issues Register with Covid-19 risk taking into account the feedback on the wording of the risk description from the PCF.	AEMO	Complete – updated register available on 5MS website
20.7.1	AEMO to clarify previous communications about reallocations with Stanwell.	AEMO	Complete
20.12.1	AEMO to update the Procedures Working Group table that showed the effective dates and document names.	AEMO	Request has been considered. However the procedures table was developed for a point in time. The procedures workstream for 5MS is now complete and any procedural changes are monitored and tracked through the BAU channels.
			1/05/2020

Program Update

Rowena Leung



Updated for 28-04-2020

Program update and current activities



AEMO program

- Overall Amber, while the timelines are undergoing change and review.
- The AEMO Internal Metering Solution milestone "Build complete" will not complete by 30 June 2020.
- New Retail plan communicated to the PCF – <u>Retail Go Live now 9 March</u> 2021.
- The new Retail Go Live date does not compromise the date for Market Trial activities (non-withstanding the potential of a 12-month deferral).

Systems

- 5MS Reallocations successfully deployed in Production 01-04-2020, completed by a remote deployment team.
- Staging environment updated with Settlements Package 2 and combined Dispatch and Settlements Data Model Released 16 March 2020.
- Proposal for new Dispatch and Settlements system deployment dates to be discussed with the PCF 5 May 2021.



Readiness

- Readiness Survey #2 completed by Industry. Consolidated report to be released 7/5.
- Implementation scenario under proposed rule deferral underway to inform participant impact assessment.
- TFG held to clarify approach, timing and support requirements for key activities.

Changes to be discussed

- There are several changes to the 5MS Program timeline under discussion:
- A. Changes to the Metering Solution Go-Live from 7-Dec-20 to 9-Mar-21
 - This is as a result of delays to the required internal systems build
- B. Proposed changes to Settlements and Dispatch go-lives
 - Under consideration as a risk mitigation measure as a consequence of the Metering Solution go-live date change
- C. Proposed 12 month deferral
 - The rule change request sent to AEMC by AEMO
 - Will be consulted on by AEMC before final determination
 - This proposal is not linked to changes A and B



Level 1 Milestones Change Report

Current as at 28-04-2020

Current L1 Milestone

ID	Stream	Milestone	Planned Date	Expected Date	%	Comments
L1-M6		AEMO Internal Systems Development – Build Complete	30 June 2020	See below	70%	Dispatch and Settlement on time. Metering solution development likely not to be fully complete by 30 June.

Issues impacting the delivery of milestone L1-M6

- Increase in complexity of the solution (under-estimation of effort in some areas)
- Technology issues which have impacted on productivity
- Security
- COVID-19

Mitigation & Consequence

- AEMO considered the approach of prioritising the functionality required for L1-19 AEMO Metering Solution Go-Live on 7 Dec 2020. However, it was determined that this approach would not return the program status to green.
- On this basis, AEMO has determined that the milestone L1-M6 should be rebaselined to 31 August 2020 and consequently, milestone L1-19 AEMO Metering Solution Go-Live should be rebaselined to 9 March 2021
- AEMO will discuss the impact of this on related milestones at the PCF on 5 May



5MS & GS Program Timeline

Current as at 28-04-2020



5MS Program Timeline (Jan '20 to Jul '21) Level 1 and External Level 2 Milestones

Current as at 28-04-2020



Changes to Milestones

ID	Milestone	Target Date	Expected Date	Owner
L1-M6	AEMO Internal Systems Development – Build Complete	30-Jun-2020	31-Aug-2020	AEMO
L1-19	AEMO Metering Solution Go-Live	07-Dec-20	09-Mar-21	AEMO
L2-M7	AEMO internal metering solution – build complete (internal)	30-Jun-2020	31-Aug-2020	AEMO
L2-M8	Software Release 3 for Package 3 in 5MS Staging Environment	31-Jul-2020	31-Aug-2020	AEMO
L2-M11	Market Trial preparation completed by participants for MDM and B2M Go-Live	22-Oct-2020	01-Feb-2021	Participants
L2-M12	Market Trial preparation completed by AEMO for MDM and B2M Go-Live	22-Oct-2020	01-Feb-2021	АЕМО
L2-RE29	Retail MDM (incl. B2M) Market Trial Commences	22-Oct-2020	01-Feb-2021	AEMO
L2-RE30	Retail MDM (incl. B2M) Market Trial Concludes	19-Nov-2020	03-Mar-2021	AEMO
L2-M24	B2M Go-Live	17-Mar-2020	09-Mar-2021	AEMO
L2-M10	5 min and 15 min MDFF accepted by AEMO	01-Feb-2021	01-Apr-2021	AEMO

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Next Steps

- AEMO has determined that moving the L1-19 AEMO Metering Solution Go-Live to 9 March 2021 returns the overall 5MS Program to Green
- This approach has been endorsed by the 5MS Program Steering Committee
- AEMO intends to implement this change. However, we will consider participant impacts and work with participants to mitigate impacts where possible
- The approach will be discussed at the TFG and RWG
- AEMO asks the PCF to liaise with their RWG reps and submit any impact of this change by **22 May 2020**



AEMO Internal Systems Delivery: Settlements and Dispatch Date Change Proposal

Graeme Windley



Proposal & Rationale

- AEMO proposes to change the systems deployment dates for Dispatch and Settlements solutions, and requests feedback from the PCF (see next slides).
- The proposal is triggered by the program decision to move the Retail solution Go Live date out to 9 March 2021, <u>not</u> the potential of the 12-month industry go live deferral rule change to pass.
- The current approach has the Retail solution being deployed three weeks before the Settlements and Dispatch solution deployments on 1 April 2021. It doesn't consider:
 - The risk of three significant cutovers all in a similar time.
 - The solution going first (Retail) carries the most technology risk with it.
 - If the software is ready to be deployed and all entry criteria to deployment is met, AEMO should look to deliver the changes and close down program streams.



Next Steps

- AEMO considers this approach to mitigate risks associated with having three go-lives close together
- At this point, AEMO is reviewing this approach and its impacts internally
- AEMO is asking the PCF their view prior to coming to a final decision on this approach
- PCF members are requested to liaise with RWG reps and provide an impact assessment by **22 May 2020**



Dispatch Solution: Deployment Proposal

AEMO is considering:

- Bringing forward the Pre-Prod deployment date by six weeks (from 29-Nov-2020 to 15-Oct-2020);
- Bringing forward the Systems deployment to 23-Nov-2020 (not the 5-min bidding activation, which will remain 01-Apr-2020).

Impacts of the Change

- No Change to the Production Bidding timeline within the 5MS program the 01-Apr-2021 change will become a configuration adjustment rather than a systems deployment.
- Pre-Production will have both 30-min Bidding capability and 5-min Bidding capability available from mid-October (date & timing TBC).
- The Pre-Production deployment will represent changes in the "Transition Phase" i.e. 5-min bidding is accepted, and 5-min reporting available, but 30-min market settlement pricing provided.
- The new 5-min market operation will be applied in Pre-Production at the time of 5-min Market Trials (as per the Readiness workstream).

Benefits of Change

- Enables Dispatch systems deployment work to proceed before other system deployments, which have undergone more fundamental changes.
- Enables participant testing of 5-min bidding and the Transition Phase outside the summer period.
- Removes the deployment from Q1 2021, which will contain a number of systems changes.



Settlements Solution: Deployment Proposal

ID	Stream	Milestone	Planned Date	Proposed Change	%	Comments
L1-SX	Systems	Settlements Platform Go Live	01-Apr-2021	<u>15-Feb-2021</u>	80%	AEMO is currently producing like-for-like invoicing

Impacts of the Change

- The Settlements deployment is a capability deployment, enabling both 30-min and 5-min market delivery. The market will remain settled at a 30-min cadence until the 5-min Settlement Go Live.
- The Pre-Production environment will have the new solution deployed in early December 2020 (date & timing TBC). It will produce 30-min settlement reporting
- The Staging deployment will host 5-min settlement reporting, which will remain enabled for participant testing as per the purpose of the Staging environment.
- The Staging environment can also produce 30-min Settlements reports via the new solution for verification, removing a dependency for Industry Testing over the summer period.
- The new 5-min market operation will be applied in Pre-Production at the time of 5-min Market Trials (as per the Readiness workstream).

Benefits of Change

- Enables Settlements solution deployment work to complete before the Retail Production deployment begins. The Retail solution will have undergone a more fundamental change.
- Enables participant testing of the 30-min like-for-like solution outside the summer period but also an extended period of >2 months within the Pre-Production environment.
- Removes the Pre-Production deployment from Q1 2021, reducing system changes within that timeframe.

Readiness Reporting Round 2

Greg Minney



Readiness Report Round 2 – Initial assessment

Round 2 Readiness Survey conducted 14th to 23rd April. Report due 6th May for discussion at RWG meeting



Significant increase in participation rate across all participant categories reflects round 1 follow up actions and addition of MC category

Some first time respondents still in process of establishing project teams Impact of COVID-19 reflected in a number of participant responses, with 40% of participant indicating a level of impact

Certainty around rule change process highlighted in a number of participant responses to confirm project delivery timing

General level of project progression, particularly across retailer and generator segments between survey

Assessment to be expanded in consultation with RWG



Industry Risks and Issues Register

Anne-Marie McCague



Approach to review

- The proposed 12 month deferral makes it difficult to meaningfully review the Industry Risks and Issues register, as there are at least 2 scenarios: no deferral and 12 month deferral
- Approach for today's PCF:
 - Review the critical risks and new issues
 - Circulate Industry Risks and Issues Register to PCF with proposed updates on risks that the intended resolution date has passed or is due in the short-term
- Propose to undertake a more thorough review of the risks once clarity on the proposed deferral is available



Industry Risks and Issues Register

Issues

ID	Owner	Title	Residual Rating	Trend	Actions
108	PCF	There are a number industry changes including rule changes that need to be implemented in the coming years. This is putting pressure on Industry resources and systems and creating risk on participants' 5MS implementation programs	Significant	Up	Consultative Group has now been established to cover this topic. This issue will be closed for 5MS as it will be managed through that group.

Risks

ID	Owner	Title	Residual Rating	Trend	Actions
R25	PCF	Risk of the spread of Coronavirus impacting organisations resulting in an impact to 5MS program readiness	Critical	Up	Question added to the Industry Readiness Questionnaire. Discussed on next slide.



Covid-19 Risk – Responses from Industry Readiness Reporting

- Initial views from responses to Readiness Reporting Round 2
 - 80% of respondents have implemented mitigation measures within their program and organisation for the management of COVID-19 risks
 - Approx. 40% have noted current or potential impacts to 5MS / GS programs
 - In a number of cases impact to vendor programs (if any) has not been confirmed
 - Potential impacts have included:
 - Project staff availability and productivity
 - Impact to physical meter replacement activity
 - Vendor delivery
 - Resource diversion to address response to business operational requirements



Rule change: proposed 12month deferral

Numerous



Rule Change Process – AEMC update

• To be provided during the PCF



Impact to 5MS Program

- AEMO has reviewed the potential impact of the proposed 12 month deferral on the 5MS Program
- This review confirmed that the proposed deferral does not cause an impact to the approach or timeline for development activities
- Changes to timeline described in previous sections is not a result of the proposed 12 month deferral and will not be impacted by the final determination
- Systems Impacts:
 - The Reallocations deployment would need to be reversed and redeployed with Reallocations effective from 1 July 2022
 - AEMO must ensure access to 5-minute functionality throughout the longer transition to account for the 'deploy-now' and 'defer' participant approaches. A combination of Pre-Prod and Staging is likely to be provided.
- However:
 - The systems will be deployed according to the described functionality, in-line with current systems timeframes as mentioned Retail MDM timeline adjustment is not related to the 12-month deferral.
 - The backwards-capable design allows AEMO to independently switch on 5MS Capabilities without further releases of software (aside from when the bidding engine formally switches over to a 5-min market).



Approach to Assessment of Industry Impact

- To support participant impact assessment and response to proposed rule change the AEMO program will:
 - Develop "deferral scenarios" incorporating transition, participant testing, and metering transition approaches reflecting the proposed deferral
 - Engage the RWG and TFG (and associated focus group) to agree the scenarios
 - TFG engagement scheduled for 06-May
 - RWG session scheduled 14-May
 - Provide input as required to AEMC for development of rule change consultation paper
- Principles to reflect:
 - Continuation of AEMO internal program
 - Industry start dates to reflect proposed deferral
 - Support ability of participants to continue their programs where feasible



Readiness Scenarios

- The 5MS Readiness Workstream has identified scenarios to discuss with the TFG and RWG
- Transition (RWG):
 - Focus on AEMO Platform Deployment and timing
 - Transition windows for participant capability deployment
 - This will be as the timeline described in this pack
- Testing (RWG):
 - Focus on timing, indicative scope and approach for each industry and market testing phase
 - Participant capability testing opportunity pre and post AEMO system deployments
- Metering Transition Plan (TFG):
 - Metering transition activities extended to reflect deferral timeframes but reflect opportunity to continue programs if participant chooses
 - Capability Availability Dates
 - Transition end dates in line with assumed rule and procedure dates
 - Highlight those activities that require participant to participant agreement to proceed



Break



Readiness Workstream Update

Greg Minney



Readiness papers - timelines

Readiness paper	RWG/ITWG/FG engagement	Draft paper	Consultation	Comments due	Final paper
Industry readiness contingency plan	Nov-2019	20-Dec	6 weeks	31-Jan-2020	8 May 2020
MSP accreditation update plan	Oct-2019	29-Nov	11 weeks	31-Jan-2020	21-Feb-2020
Bidding and dispatch transition plan	Jun-2020	10-Jul	3 weeks	31-Jul-2020	28-Aug- 2020

Industry Transition and Go-live Strategy and Industry Test and Market Trial Strategy to be reissued to incorporate changes arising from L1-M6 milestone shift



Workstream engagement

- Contingency Planning
 - Finalised paper undergoing review prior to issue
 - Industry feedback considered no fundamental changes to draft
 - Final paper to consider updated definition of essential meters
 - RWG/PCF to consider critical mass and critical capability
 - Final paper to be issued
- Metering Transition Plan
 - TFG conducted 6 April 2020
 - Focus of activity:
 - Increase clarity and understanding of activities in the MTP
 - Confirm those areas where:
 - AEMO support may be required by participants
 - Implementation approaches to activities need elaborating
 - Share plans and approaches across impacted participants
 - Support ongoing participant work programs
 - MP meter installation plans provided by impacted MPs
 - Focus on installation and configuration of T1,2,3,4* meters
 - Will form the basis of progress reporting

Workstream engagement

RWG

- Next meeting will consider participant impacts resulting from:
 - Shift of L1-M6 and associated milestones,
 - Proposed 12 month Deferral Scenario
 - Transition and go live approach
 - Industry test and Market Trials timing and scope
 - Metering Transition Plan to be considered by TFG

ITWG

• Will confirm approach and scope of approach to Industry Testing and Market Trials under revised implementation plan and deferral scenario

Metering Accreditation Update Plan

- Pre-accreditation meetings have commenced
- Majority of participants have now provided initial feedback on their planned scope of change and implementation timings



Level 2 Milestones – Readiness

2020 2019 2021 Initiative L2-RE06 L2-RE08 L2-RE03 L2-RE03 L2-RE05 L2-RE10 L2-RE11 L2-S8 L2-RE32 RE24 L1-RE31 RE25 RE27 L2-D8 **RE28** È Q3 Q2 04 Ņ L2-RE01 L2-RE02 L2-RE12 L2-RE07 L2-RE09 L2-RE13 L2-RE15 L2-RE14 L2-RE18 L2-RE20 L2-D10 L2-RE04 L2-RE22 -2-RE19 L2-RE23 L2-RE21 L2-S12 I 2-S10 L2-S11 L2-D7 L2-D11 Readiness R 4 Key Milestones (Program) Target Date Expected Date Owner Milestone L2-RE01 Industry Working Group Established 15-Jul-2019 15-Jul-2019 Complete AEMO

-M12 RE29

M10

Current as at 28-04-2020

Milestone complete Milestone on trac Milestone at risk Milestone not achieved

Domain

	L2-RE02	Market Readiness Strategy Industry Draft	30-Aug-2019	30-Aug-2019	AEMO	Complete
ack	L2-RE03	Market Readiness Strategy Finalised	29-Nov-2019	30-Oct-2019	AEMO	Complete
sk	L2-RE04	Industry Test Strategy Industry Draft Released	30-Sep-2019	30-Sep-2019	AEMO	Complete
	L2-RE05	Industry Test Strategy Finalised	29-Nov-2019	29-Nov-2019	AEMO	Complete
	L2-RE06	Transition and Go Live Strategy Industry Draft Released	30-Sep-2019	30-Sep-2019	AEMO	Complete
	L2-RE07	Transition and Go Live Strategy Finalised	29-Nov-2019	29-Nov-2019	AEMO	Complete
	L2-RE08	Market Trial Strategy Industry Draft	30-Sep-2019	30-Sep-2019	AEMO	Complete
	L2-RE09	Market Trial Strategy Finalised	29-Nov-2020	29-Nov-2019	AEMO	Complete
	L2-RE10	Metering Service Provider Accreditation Update Plan Industry Draft	29-Nov-2019	29-Nov-2019	AEMO	Complete
	L2-RE12	Industry Readiness Reporting Plan Industry Draft	31-Oct-2019	31-Oct-2019	AEMO	Complete
	L2-RE13	Industry Readiness Reporting Plan Finalised	13-Dec-2019	13-Dec-2019	AEMO	Complete
	L2-RE15	Industry Transition Plan – Metering final complete	07-Feb-2020	07-Feb-2020	AEMO	Complete
	L2-RE14	5MS / GS Industry Readiness Reporting Implemented	28-Feb-2020	02-Mar-2020	AEMO	Complete
	L2-S8	Industry Test start for Reallocations	01-Mar-2020	28-Feb-2020	AEMO	Complete
	ARKET OPERATOR	•				

Level 2 Milestones – Readiness

Current as at 28-04-2020

Dor	main	Initiat	tive		20)19			2020					2021				
				Q1	Q1 Q2 Q3 Q4		Q1	-RE32	Q2	Q3	Q4	t L2-M12 L2-M12 L2-RE29 L2-RE30		Q2	Q3	Q4		
Readiness				les Fab Mes				L2-RE11	L2-S12 L2-		L2-RE22	L2-RE18		L2-M11 L2-D7 L2-M10			iept Oct Nov Da	
			-	estones (F		Jui Aug sepi					Jul Aug Sept							
			ID	Milesto	one						Target D	ate	Expe	cted Date	Owner	Sta	US	
	Milestone complete L2-RE11 Milestone on track L2-S12 Milestone at risk L2-RE32			Meteri	ng Service	Provider A	ccreditatic	on Plan Fi	nalise	d	13-Mar-	2020	18-Fe	eb-2020	AEMO	Co	mpleted	
				Reallo	ocations Go	o-Live					01-Apr-2	01-Apr-2020 01-Apr-2020		pr-2020	AEMO	Co	mpleted	
				Indust	Industry Test for Reallocations Concludes						31-Mar-	31-Mar-2020 31-Mar-2020		AEMO	Co	mpleted		
	Milestone no	t achieved	L2-RE22	Indust	Industry Transition Plan – Dispatch final complete 28-Aug-2020 28-Aug-20								ug-2020	AEMO				
			L2-M11		Market Trial preparation completed by and B2M Go-Live					y participants for MDM 22-Oct-202			01-Fe	eb-2021	Participant	s		
			L2-M12		et Trial prep Go-Live	aration co	mpleted b	y AEMO	for M	DM and 22-Oct-2020 01-Feb			eb-2021	AEMO				
			L2-RE29	Retail	MDM (incl.	. B2M) Mar	ket Trial Co	mmence	es		22-Oct-2	22-Oct-2020 01-Feb-2021			AEMO			
			L2-RE30	Retail	Retail MDM (incl. B2M) Market Trial Concludes						19-Nov-	19-Nov-2020 03-Mar-2021		ar-2021	AEMO			
			L2-RE18	Indust	try Go-Live	Plan Retai	MDM final	ised			20-Nov-	2020	20-N	ov-2020	AEMO			
L2-RE18 Industry L2-M24 B2M Go					Go-Live						17-Mar-	2020	09-N	ar-2021	AEMO			
L2-RE18Industry Go-Live Plan Retail MDM finalised20-Nov-20202L2-M24B2M Go-Live17-Mar-20200					01-A	pr-2021	AEMO											
			L2-D7		tch Market ipants	Trial prepa	aration con	npleted k	су		17-Feb-2	2021	17-Fe	eb-2021	Participant	s		
			L2-D8	Dispa	tch Market	preparatio	on complet	ted by Al	ЕМО		17-Feb-2021 17-		17-Fe	eb-2021	AEMO		36	
Level 2 Milestones – Readiness

Current as at 28-04-2020

	Domain	Initiative		20)19			20)20			4 -	2021	1		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2-S11	-RE24	-RE2	Q3	-RE2	Q4
R	eadiness		L2-RE20 L2-RE20 L2-RE20 L2-RE20 L2-L2-D10 L2-L2-D10 L2-D11 L2-D11 L2-D11												L2-RE26 L2	L2-RE21
		Key Milesto			Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May	Jun Jul	Aug Sep	t Oct I	Nov Dec
			vilestone	•••	_	_	_	Target Dat	e Exne	cted Date	Owne	⊇r	Statu	15		
			Settlements	Market Trie	al preparat	tion comple	eted by pa	rticipants	17-Feb-20		eb-2021	Particip				
		L2-S11	Settlements	Market Trie	al preparat	tion comple	eted by AEI	NO	17-Feb-20	21 17-Fe	17-Feb-2021 д					
	Milestone complet	e L2-RE28	Dispatch a	nd Settleme	ents Marke	t Trial conc	ludes		15-Mar-20	21 15-N	ar-2021	AEMO				
	Milestone on track		Industry Go	-Live Plan S	Settlements	s, Dispatch	& Bidding f	inalised	19-Mar-20	21 19-1/	ar-2021	AEMO				
	Milestone at risk Milestone not		5MS Capak participant		t Trial prepo	aration cor	npleted by		06-Apr-202	21 06-A	pr-2021	Particip	oants			
•	achieved	L2-RE24	5MS Capat	oility Marke	t Trial prep	aration cor	npleted by	AEMO	06-Apr-202	21 06-A	pr-2021	AEMO				
		L2-RE31	5MS Capat	oility Marke	t Trial comr	mences			06-Apr-202	21 06-A	pr-2021	AEMO				
		L2-RE20	Industry Go	-Live Plan -	- 5MS Capa	ability final	complete		07-May-20	021 07-N	lay-2021	AEMO				
		L2-D10	5MS Capat	oility Marke	t Trial conc	ludes			31-May-20)21 31-N	1ay-2021	AEMO				
		L2-D11	30-min Bido	ling no long	ger accept	ted by AEM	0		01-Jul-202	1 01-J	-2021	AEMO				
		L2-RE25	MDMT form	at no longe	er accepte	ed by AEMC	al meters	01-Jul-202	1 01-Ju	I-2021	AEMO					
		L2-RE26	GS Market	Trial prepar	ation com	pleted by p	;	01-Oct-20	21 01-0	ct-2021	Particip	oants				
		L2-RE27	GS Market	Trial prepar	ation com	pleted by A		01-Oct-20	21 01-0	ct-2021	AEMO					
		L2-RE21	Industry Go	-Live Plan -	- GS Capal	bility final c	omplete		21-Dec-20	21 21-D	ec-2021	AEMO			3	7

Systems Workstream Update

Graeme Windley



Most attended and engaged SWG yet – 100 personnel on the call at peak and three hours 15 mins in length. For the detailed discussion refer to the SWG #21 pack available <u>here</u>.

aseXML Schema Release 39

- Multiple participants raised concerns about both Customer Switching and 5MS changes released in the same schema, although the industry go live dates are not connected. Therefore both changes must be ready to accept the schema.
- The schema is designed to enable the receipt of new fields, not stopping current processing (noting the need for regression testing).
- AEMO is to schedule a session for concerned participants to discuss.

A number of questions raised about Customer Switching – discussion with PCF on the reasoning.

Impact of Retail solution delay discussed, largely to provide clarity surrounding what will be delivered when.



5MS Staging Environment Update

Dispatch	Settlements	Metering
DROP ONE – 29 November 2019 Submit 5-Min Bids, via new web interface, API and/or FTP Bidding Data Model changes as per technical specifications released July 2019 Case Loaders for PASA, Dispatch, 5-minute Pre-Dispatch & 30-minute Pre-Dispatch data	DROP ONE – 1 November 2019 Reallocations: available at both 30 and 5-min intervals New Web UI Calendar selection Alerts	DROP ONE – 1 December 2019 Test connection to Staging Test MDFF validations Validate data exchange
DROP TWO – 15 May 2020 Administrative Price Cap (calculated on a 5- min basis over the past seven days) Pricing DDL (provides the NEM report configuration; pricing will be in 5-min not 30- min)	DROP TWO – 15 March 2020 Settlements 30-min: R1, R2, PF and F runs all completed, tax invoices – RCTIs, Statements and Reconciliations available for the runs delivered Data interchange files produced 5-min to come	DROP TWO – 15 June 2020 Test MTRD CSV MDFF created for NEM Settlements and TUOS billing against new AEMO validations for NEM13 and NEM12 (30 min, 15 min and 5 min). Test MDMT CSV MDMF created for NEM Settlements against AEMO validations for Basic, Interval and Profile meters. Validate FTP or API message exchange with the NEMMCO participant ID for MTRD and MDMT MeterDataNotifications. Confirm AEMO ingested meter reads.
	DROP ONE – 1 November 2019 Prudentials (content TBC)	DROP THREE – 31 August 2020 TBC
Drop Two Status : On track	Drop Three Status : On track	Drop Two Status : On track



Systems Workstream – Dispatch & Operations

5 MINUTE SETTLEMENT					TI	MING				
SYSTEMS TRACKING	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	5MS Staging	Preprod	Production
DISPATCH and OPERATIONS					· ·	· · · ·		· · ·		• •
			PACKAGE 1 - E	Bidding FTF	and API					
Transition	Aug-18	Oct-18	Aug-18	Nov-18	Dec-18	2-Apr-19	31-Oct-19	29-Nov-19	Nov-20	Mar-21
Bidding Data Model	Aug-18	-	Sep-18	Mar-19	Dec-18	2-Apr-19	31-Oct-19	29-Nov-19	Nov-20	Mar-21
Bidding Format	Aug-18	-	Sep-18	Nov-18	Dec-18	2-Apr-19	31-Oct-19	29-Nov-19	Nov-20	Mar-21
			PACKAGE 2	- Bidding \	Veb UI					
Bidding Web UI and APIs	Aug-18	Nov-18	Dec-18	Jan-19	Mar-19	31-Jul-19	16-Dec-19	29-Nov-19	Nov-20	Mar-21
		РАСК	AGE 3 - Dispato	ch, Pre-dis	oatch and PA	SA				
Dispatch	Aug-18	-	Oct-18	Nov-18	Oct-18	2-Apr-19	-	29-Nov-19	Nov-20	Mar-21
Predispatch P30/7DAY	Aug-18	-	Oct-18	Nov-18	Oct-18	2-Apr-19	-	29-Nov-19	Nov-20	Mar-21
Predispatch P5	Nov-18	Oct-18	Nov-18	TBC	TBC	TBC	-	TBC	Nov-20	May-21
ST and PD PASA	Aug-18	-	Oct-18	Nov-18	Oct-18	2-Apr-19	31-Oct-19	29-Nov-19	Nov-20	Mar-21
		PA	CKAGE 4 - Pric	ing and Mi	scellaneous					
Trading Price / Price Revision	Aug-18	-	Feb-19	Nov-18	Mar-19	31-Jul-19	-	15-May-20	Nov-20	May-21
Administered Pricing and CPT	Aug-18	-	Feb-19	Dec-18	Mar-19	31-Jul-19	-	15-May-20	Nov-20	May-21
Suspension Pricing	Sep-18	-	Feb-19	Dec-18	Mar-19	31-Jul-19	-	15-May-20	Nov-20	May-21
Negative Residue Management	Sep-18	-	Feb-19	Dec-18	Jun-19	31-Jul-19	-	15-May-20	Nov-20	May-21
RERT	Oct-18	-	-	-	-	-	-	-	-	-
			PACKAGE 5	- Full Data	Model					
Full Data Model	Sep-18	Ongoing	Ongoing	Apr-19	Ongoing	31-Jan-20	16-Mar-20	29-Nov-19	Nov-20	May-21

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Level 2 Milestones - Dispatch

Current as at 28-04-2020

Domain	Initiative	2019				20	20		2021				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Dispatch			L2-D1	L2-D2 L2-D12	L2-D3	L2-D13	L2-D5 L2-D4						
		Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec

	Key Mile	estones (Program)			
	ID	Milestone	Target Date	Expected Date	Status
	L2-D1	Final technical specifications for Package 1 published by AEMO	2-Apr-2019	2-Apr-2019	Complete
complete	L2-D2	Final technical specifications for Package 2 published by AEMO	31-Jul-2019	31-Jul-2019	Complete
on track	L2D12	Final technical specifications for Package 4 published by AEMO	31-Jul-2019	31-Jul-2019	Complete
at risk	L2-D3	Software drop for Packages 1,2 & 3 in 5MS Staging Environment	29-Nov-2019	29-Nov-2019	Complete
not achieved	L2-D13	Final technical specifications for Package 5 published by AEMO	31-Jan-2020	16-Mar-2020	Complete
	L2-D5	Software drop for Package 4 in 5MS Staging Environment	15-May-2020	15-May-2020	
	L2-D4	Development completed (internal)	31-May-2020	31-May-2020	



Milestone Milestone Milestone

 MDFF Acceptance date adjusted to align with revised MDM Go-Live date. Production date aligned with Production milestone "L2-M10 New MDFF format accepted by AEMO" tracked via Readiness Stream.

Systems Workstream - Metering

Current as at 28-04-2020

5 MINUTE SETTLEMENT					Т	IMING				
SYSTEMS TRACKING	Internal	Focus/Group	SWG	External	Draft	Final	User	5MS Staging	Preprod	Production
	HLIA		Engagement	HLIA	Tech Spec	Tech Spec	Guides		\backslash	
METERING	1									
		P	ACKAGE 1 - M	etering Data	a & Metrolog	gy			$\overline{}$	
MDFF • MDFF Specification NEM12 NEM13 v20	Aug-18	Oct-18	Oct-18	Nov-18	Jan-19	Apr-19	-	1-Dec-19	22-Oct 20 01-Feb-21	01-Feb-21 09-Mar-21
	1		PACKAG	E 2 - MSATS	& SLPs					
Transition • MSATS Technical Specification	Aug-18	Sep-18	Aug-18	Nov-18	31-May-19	30-Sep-19	-	-	-	-
Meter Data - MDFF and MDMF • MDM File Format and Load Process (User Guide) • MSATS Technical Specification	Aug-18	Oct-18	Sep-18	Nov-18	31-May-19	30-Sep-19	-	1-Dec-19	22-Oct-20 01-Feb-21	01-Feb-21 09-Mar-21
			PACKAGE	3 – Miscel	laneous					
B2M via API • MSATS Technical Specification	Oct-18	-	Apr-19	9-May-19	31-May-19	30-Sep-19	31-Jul-20	N/A	22-Oct-20 01-Feb-21	07-Dec-20 09-Mar-21
MSATS Browser (LVI) changes • MSATS Technical Specification	Aug-18	-	May-19	9-May-19	28-Jun-19	30-Sep-19	31-Jul-20	31 Jul 20 ▼ 15-Jun-20	22-Oct-20 01-Feb-21	07-Dec-20 09-Mar-21
MSATS Report changes • MSATS Procedures MDM Procedure • MDM File Format and Load Process (User Guide) • MSATS Technical Specification General Process & Document Clean-up	Oct-18	-	Apr-19	Apr-19	28-Jun-19	30-Sep-19	-	31-Jul-20 31-Aug-20	22-Oct-20 01-Feb-21	07-Dec-20 09-Mar-21

1. New 'Release 2' Staging software drop to expose additional functionality at earlier date in Staging environment

2. Revised 'Release 3' Staging software drop to expose remaining end-state functionality in Staging environment

AEMO

 Pre-Production date(s) adjusted during April '20 AEMO replan. Date aligned with "L2-M12 Industry test preparation completed by AEMO for MDM and B2M Go-Live" milestone tracked via Readiness Stream. Production date(s) adjusted during April '20 AEMO replan. Date aligned with "L1-19 AEMO Metering Solution - Go-Live" milestone tracked via Readiness Stream.

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Level 2 Milestones – Metering

Current as at 28-04-2020

Domain	Initiative		20	Ž			20	20 <mark>@</mark>			20)21	
		Q1	Q2	Q3 Q3	Q4	Q1	Q2	Q: <mark>Z-</mark>	Q4	Q1	Q2	Q3	Q4
Metering			L2-M2 L2-M1	L2-M3	L2-M5		L2-M6	L2-M7					
		Jan Eeh Mar	Apr May Jup	lul Aug Sent C		lan Eeh Mar	Apr May Jup	Jul Aug Sent	Oct Nov Dec	lan Eeb Mar	Apr May Jup		Oct Nov Doc

	Key Mile	estones (Program)			
	ID	Milestone	Target Date	Expected Date	Status
Vilestone complete	L2-M1	AEMO internal metering solution – solution design complete (internal)	31-May-2019	17-Jun-2019	Complete
Ailestone on track	L2-M2	Final technical specifications for Package 1 published by AEMO	30-Jun-2019	30-Apr-2019	Complete
/ilestone at risk /ilestone not achieved	L2-M3	Final technical specifications for Package 2 published by AEMO	30-Sep-2019	30-Sep-2019	Complete
	L2-M4	Final technical specifications for Package 3 published by AEMO	30-Sep-2019	30-Sep-2019	Complete
	L2-M5	Software Release 1 for Packages 1 & 2 in 5MS Staging Environment	01-Dec-2019	01-Dec-2019	Complete
	L2-M6	Software Release 2 for Package 3 in 5MS Staging Environment	15-Jun-2020	15-Jun-2020	New Staging milestone to release subset of end-state functionality earlier.
	L2-M7	AEMO internal metering solution – build complete (internal)	30-Jun-2020	31-Aug-2020	Date adjusted post AEMO Apr '20 replanning.
	L2-M8	Software Release 3 for Package 3 in 5MS Staging Environment	31-Jul-2020	31-Aug-2020	Date adjusted post AEMO Apr '20 replanning.

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Systems Workstream - Settlements

5 MINUTE SETTLEMENT					TI	MING				
SYSTEMS TRACKING	Internal	Focus/Group	SWG	External	Draft	Final	User	5MS Staging	Preprod	Production
	HLIA		Engagement	HLIA	Tech Spec	Tech Spec	Guides			
SETTLEMENTS										
			PACKAGE	1 - Reallocat	tions					
Reallocations	Dec-18	Nov-18	Dec-18	Mar-19	31-Jul-19	15 Oct 19	1-Nov-19	1-Nov-19	1-Mar-20	1-Apr-20
			PACKAGE 2 - Se	ettlements a	and Billing					
Settlements	Oct-18	Nov-18	Dec-18	Mar-19	30-Aug-19	20 Dec 19	-	16 Mar 20	Nov-20	Apr-21
Billing	Oct-18	Nov-18	Dec-18	Mar-19	30-Aug-19	20 Dec 19	-	16 Mar 20	Nov-20	Apr-21
		P/	ACKAGE 3 - Pruc	dentials and	Estimation					
Prudentials	Sep-18	Nov-18	Dec-18	Mar-19	31-Oct-19	31 Jan 20	15 May 20	15 May 20	Nov-20	Apr-21
Estimation	Oct-18	Nov-18	Dec-18	Mar-19	31-Oct-19	31 Jan 20	-	15 May 20	Nov-20	Apr-21
Full Data Model	Refer DISPATCH									



Level 2 Milestones – Settlements

Current as at 28-04-2020

Domair	n	Initiative		2019				20	20		2021						
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Settlemer	nts					L2-S1 L2-S2 L2-S3											
		K		Mar Apr May Jun Jul Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun										OCI NOV Dec			
		ID	Miles	tone					Tar	get Date	Expect	ed Date	Status				
		L2	-S1 Final	technical sp	ecification	s for Packa	ge 1 publis	hed by AEI	MO 15-	-Oct-2019	15-Oct	15-Oct-2019 Comple		ete			
Milo	estone comp		-S2 Softw	vare drop foi	Package	1			01-	Nov-2019	01-Nov-2019		Comple	ete			
	estone on tra	L2	-S3 Final	technical sp	ecification	s for Packa	ge 2 publis	hed by AEI	MO 15-	Dec-2019	16-Dec	c-2019	Complete				
	estone at risl	L2	-S4 Final	Final technical specifications for Package 3 published by AEMO 31-Jan-2020 31-Ja							-2020	Comple	ete				
	estone not a	L2	-S6 Softv	Software drop for Package 2 in 5MS Staging Environment16-Mar-202016							vare drop for Package 2 in 5MS Sto		16-Mar-2020 16		r-2020	Comple	ete
	istone not a		-S7 Softw	Software drop for Package 3 in 5MS Staging Envir					15-	-May-2020	15-Ma	y-2020	On Trac	:k			
		L2	-S5 Deve	Development completed (internal)					31-	-May-2020	31-Ma	y-2020					



Forward Meeting Plan

Anne-Marie McCague



Proposed Executive Forum Agenda

- Next Executive Forum scheduled for 11 June 2020
- Proposed agenda:
 - Actions from previous meeting
 - Issues and critical risks
 - Program update changes to milestones
 - Proposed 12 month deferral
 - Update on Readiness Report Round 2



Forward Meeting Agenda

June Agenda

- Proposed 12 month deferral
- Industry Risks and Issues Register (TBC)
 - Discussion on risks and issues that should be escalated to the Executive Forum
- Changes to milestones
- Stakeholder Engagement Survey Report

Next meeting: 2 June 2020

To add items to the agenda, please contact us at <u>5MS@aemo.com.au</u>



Upcoming meetings

https://aemo.co m.au/initiatives/ majorprograms/nemfive-minutesettlementprogram-andglobalsettlement

Current as 30 April 2020



					Μ	AY
Su	Мо	Τυ	We	Th	Fr	Sa
26	27	28	29	30	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	1	2	3	4	5	6

JUNE Su Mo Tu We Th Fr Sa

JULY Fr Sa Su Mo Tu We Th 13 14 15 - 1

Forums/Working Groups
Executive (EF)
Program Consult. (PCF)
Procedures (PWG)
Systems (SWG)
Readiness (RWG)
Industry Testing (ITWG)

Focus Groups
Dispatch
Metering
Settlements
Transition
Industry Testing
Reconciliation
Contingency

Other	
Information sessions	
General Q&A session	
ational Public Holiday	

State Public Holiday*

*Relevant state has been marked in a comment. WA, NT, TAS, ACT holidays have not been marked.

General Questions

Peter Carruthers



Meeting Close

Peter Carruthers



