



# 5MS & GS Systems Working Group #22

20 May 2020

# Agenda

No	Time (AEST)	Agenda item	Presenter
1	10:00 – 10:05	Welcome, introduction and apologies	Graeme Windley
2	10:05 – 10:15	Actions update	Anne-Marie McCague
3	10:15 – 10:25	Program update	Graeme Windley
4	10:25 – 10:35	r39 Schema review summary	Paul Lyttle
5	10:35 – 10:55	Day 1: Minimum Requirements (all streams)	Simon Tu / Pierre Fromager
6	10:55 – 11:00	Industry Testing Working Group update	Tui Grant
8	11:00 – 11:10	Readiness Working Group update	Greg Minney
9	11:10 – 11:15	Procedures update	Simon Tu
10	11:15 – 11:20	Forward meeting plan	Graeme Windley
<b>Stream Updates</b>			
11	11:20 – 11:25	Retail stream update	Jim Agelopoulos
12	11:25 – 11:30	Dispatch stream update	Ian Devaney
13	11:30 – 11:40	Staging Deployment	Ian Devaney / Tui Grant
14	11:40 – 11:50	Data Model Update	Sangeeta Pai
15	11:50 – 11:55	Settlements stream update	Mark Hillaby
16	11:55 – 12:05	Staging Deployment	Mark Hillaby / Tui Grant

# Actions Update

Anne-Marie McCague

# Open actions

Item	Action required	Responsible	Action update	By
21.4.1	Participants are requested to advise 5ms mailbox if they wish to go to Pull for B2M message exchange.	Participants		20/05/2020
21.4.2	AEMO to arrange a Focus Group on aseXML Schema r39 and the impact of the schema updates on participants' systems updates for 5MS and Customer Switching.	AEMO	Completed on 11 May. Pack is included within Appendix One.	11/05/2020
21.4.3	AEMO to confirm how participants will be notified when new datastream type codes are used when still on the r38.	AEMO	Responses to the 2500 series CRs provides the datastream type for each suffix the new datastream type code 'N' will be a value in this field when configured in MSATS. For Datastream Type options please refer to the Table 12 in Standing Data For MSATS v5.0.	20/05/2020
21.4.4	AEMO to confirm if r39 applies to B2B messages where it contains standing data details (i.e. TNI2 in a MeterData MissingNotification or MeterDataVerifyRequest)	AEMO	The above nominated transactions include NMI standing data and will display the TNI2 code when applied to a Cross Boundary connection point	20/05/2020
21.4.5	AEMO to confirm any plans for regression testing with participants before the release of r39.	AEMO	The following dates indicate when the Schema will be available for participants to perform industry testing: <u>Staging environment</u> – Drop 3 01-Aug-2020 <u>Pre-Production</u> – 01-Feb-2021	20/05/2020
21.4.6	AEMO to provide a summary of market system capability go live impacts on participants, per stream.	AEMO	Within this pack	20/05/2020
21.8.1	AEMO to confirm when MDM Procedures v4.0 will be updated to reflect approved CR18.	AEMO	AEMO can confirm that the MDM Procedure will be updated to reflect changes to RM17, RM21 and RM27 to include the report field MDPVersionDT for each settlement day	20/05/2020

# Program update

Graeme Windley

# 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 – [Retail Go Live now 9 March 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*

- Staging environment deployments for Settlements & Dispatch completed 15 May 2021.
- Proposal for new Dispatch and Settlements system deployment dates discussed with the PCF on 5 May 2021. No decision has been made yet.



## *Readiness*

- Readiness Survey #2 completed by Industry. Consolidated report released 7 May 2021.
- 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
    - AEMC published consultation paper on 14 May
    - Submissions due by 11 June
    - AEMC final determination 9 July

# A. Changes to the Metering Solution Go-Live from 7-Dec-20 to 9-Mar-21

Current as at 28-04-2020

## Current L1 Milestone

ID	Stream	Milestone	Planned Date	Expected Date	%	Comments
L1-M6	Systems	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

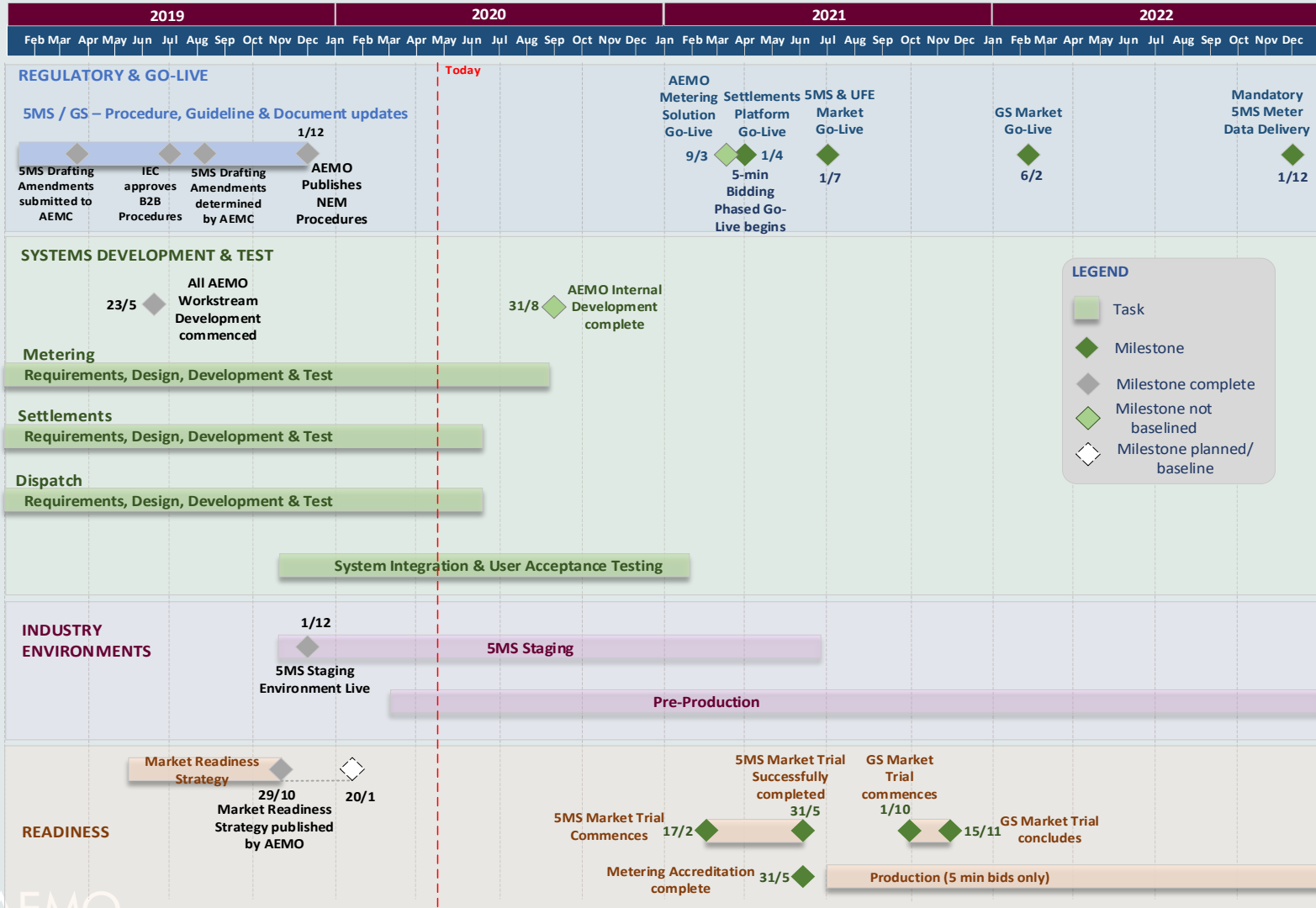
## Mitigation & Consequence

- 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

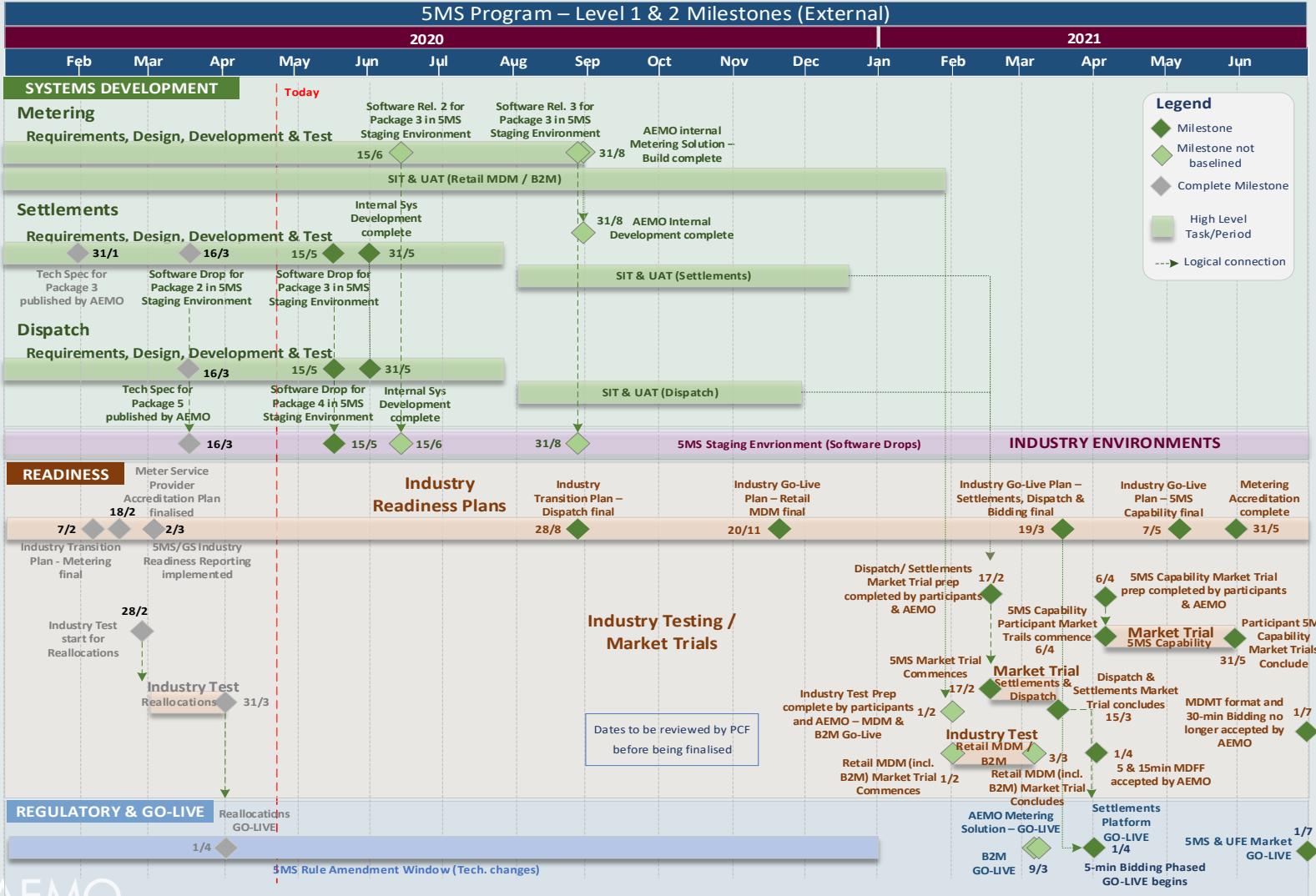
Current as at 28-04-2020



# 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	AEMO
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

# r39 Schema Discussion

Paul Lyttle

# r39 Schema Discussion

- A single schema containing change for 5MS and Customer Switching will be released at MDM go live.
- Participants do not have to Update to r39 unless they are on the B2M superseded version r31.
- Each market participant will need to assess the impacts of updating or not updating the schema depending on their business requirements.
- The production go live slide can be used as a guide to assist in business decisions (slide 17 of the Schema Focus Group meeting pack)
- Meeting pack will be available on the [SWG webpage](#).

# Day 1 Requirements: AEMO Systems Implementation

AEMO Stream Leads / Business Analysts

# Dispatch Production Deployment

- Database (13-May-2020): 30-min bids are replicated to 5-min tables internally but continue to be published to 30-min tables in the data model.
- 5-min Dispatch (29-Nov 2020): Once all current and future 30-min bids are replicated, Dispatch engine starts looking at 5-min tables.
- 5-min Bidding Enablement, Day 1 (01-Apr-2021) – Start of 'Transition Period': Participants can submit 5-min bids.
  - Both 30 and 5-min bids go to submission (BidOfferFileTrk) and bid (BidDayOffer) tables. (TransactionID is null for 30-min bids).
  - New 5-min period table (BidOfferFileTrk) holds 5-min bids
  - 30-min period data continues to be stored in BidPerOffer

## Mandatory Changes (01-Apr-2021)

- If either of Dispatch or Settlements new system deployment date proposals are agreed, potential for the data model to be split. AEMO to confirm.

# Dispatch – Current Timetable

Domain	Initiative	2020				2021				2022													
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
Dispatch																							
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct

Staging Drop 2

Pre-Prod Deploy

Prod Deploy

5MS Go Live

**Pre-Production Deployment:**

- 5MS Bidding Service (API, FTP, JSON Format)
- Web Bidding
- Dispatch, Pre-Dispatch
- ST-PASA
- Administrative Price Cap (5-Minute APC value)
- Pricing (5-Minute Pricing)
- Participant Data Model 5.0 (5MS PDM)

**Proposed Commencement Date:**

- 5-min Bidding only via JSON File Format and Web Portal.
- 30-min Bids will no longer be accepted.

**Staging Drop 2:**

- 5MS Bidding Service (API, FTP, JSON Format)
- Web Bidding
- Dispatch, Pre-Dispatch
- ST-PASA
- Administrative Price Cap (5-Minute APC value)
- Pricing (5-Minute Pricing)
- Participant Data Model 5.0.0.1

**Production Deployment:**

- 5-min Bidding will be available via FTP, API and Web Portal., noting new JSON Format.
- Bids will need to be the same for any given 30-minute period, emulating a 30-minute bid.
- 30-min Bids will run in parallel allowing participants to transition to 5-min Bidding before the commencement date.

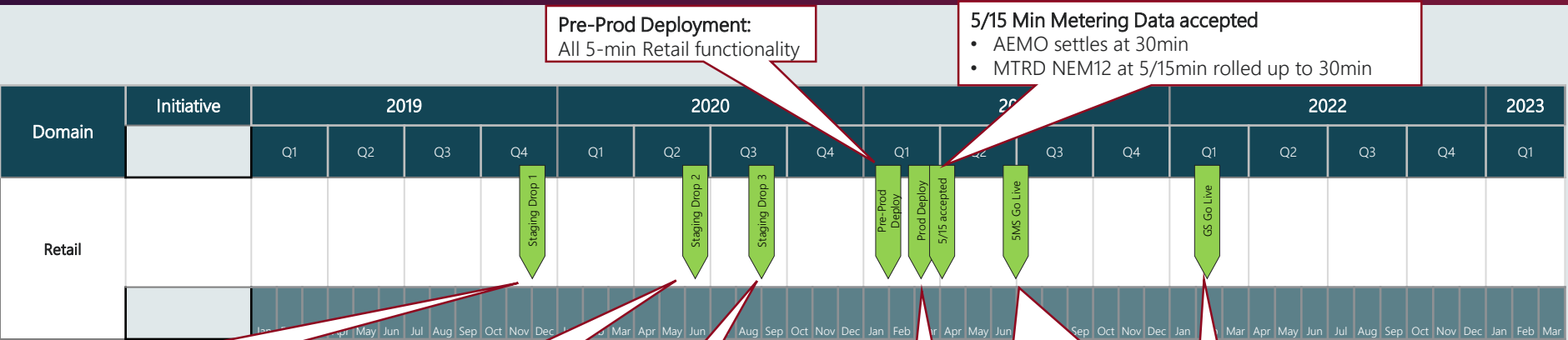


# Retail Production Deployment

Participant Market System Capability		MDP/MC	LNSP	MPB/MC	FRMP/LR
Meter Data Notifications	Basic for Mkt Settlements	Mandatory			
	30min for Mkt Settlements (Interval and Profile meters)	Mandatory			
	MTRD - MDFF NEM13 for Mkt Settlements	Optional			
	MTRD - MDFF NEM12 at 5min for Mkt Settlements	Optional			
	MTRD - MDFF NEM12 at 15min for Mkt Settlements	Optional			
	MTRD - MDFF NEM12 at 30min for Mkt Settlements	Optional			
	10MB file size for MTRD for Mkt Settlements	Optional			
	10MB file size for MTRD for B2B Mkt Activities	By Bilateral Agreement Only			
CNDS Data Streams	Migrate Net to Register Datastreams	Optional			
	Create kVarh Datastreams	Optional			
Reports	MDMT Meter Data Report-Request RM37, RM38, RM39	Recommended <sup>1</sup> where MDFF is sent			
	Report X of Y message functionality	Optional <sup>1</sup>			
Message Protocols	API Message Exchange for CATS, NMID, MDMT	Optional			
Standing Data and CRs	Submit CRs with new standing data codes (Datastream Type, NMI Class Code, MITC)	Transition window and responsibilities defined in the 5MS Metering Transition Plan			
	Accept NMID with new standing data codes (Datastream Type, NMI Class Code, MITC)				
	Submit CRs with new standing data element (TNI2) <sup>1</sup>				
	Accept NMID with new standing data element (TNI2) <sup>1</sup>				

<sup>1</sup> Migration to r39 is a prerequisite

# Retail – Current Timetable



**Pre-Prod Deployment:**  
All 5-min Retail functionality

**5/15 Min Metering Data accepted**

- AEMO settles at 30min
- MTRD NEM12 at 5/15min rolled up to 30min

**Staging Drop 1:**

- MTRD NEM12 at 5-min
- FTP protocol support

**Staging Drop 2:**

- MTRD NEM12 at 5/15/30-min
- MTRD NEM13
- MDMT Interval, Profile and Consumption
- API-Push protocol support
- MSATS Browser supports register & sub 30-min interval metering data

**Staging Drop 3: All 5-min Retail functionality**

- MDMT Report-Request for new reports
- API-Pull protocol support
- Support for TN12, Q&Q and new NMI Classification codes.
- CR support for 5MS NMI Standing Data (new NMI Classification Codes, TN12, GLOPOOL etc.)

**Production Go Live**

- AEMO settles at 30min
- MDMT Interval, Profile and Consumption
- MTRD NEM12 at 30min
- MTRD NEM13
- MDMT Meter Data Report-Request RM37, RM38, RM39
- FTP, API-Push and API-Pull support
- Support for TN12, Q&Q and new NMI Classification codes.

**5MS Go Live:**

- AEMO settles at 5-min
- MDMT UFE Report-Request RM43, RM46
- MSATS Browser supports TN12 and Multi Use NMI details
- New CR rejection logic for CNDS Suffix and Type.
- MDMT for Interval and Profile meters rejected

**GS Go Live:**

- Configuration of "GLOPOOL" Participant IDs.
- New CR rejection logic for Participant IDs.

# Settlements Production Deployment

## Production Deployment - Day 1

(01-Apr-2021)

- Settlement calculations continue to use and provide 30-min data.
- Prudential APIs are live.

### Mandatory Changes

- New look prudential dashboard, forecast dashboard, credit support, Settlements direct.
- New-look invoices.
- RCTI format is changing (as per the Tech Spec)

AEMO requests Participants confirm if any of the above are automatically read.

- If either of Dispatch or Settlements new system deployment date proposals are agreed, potential for the data model to be split. AEMO to confirm.

# Settlements – Current Timetable

Current as at 03-04-2020

Domain	Initiative	2019				2020				2021				2022				2023	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
Settlements																			

**Staging Drop 1: Reallocations**

- 30-min and 5-min reallocations
- Web UI
- Alerts

**Staging Drop 2: 30-Min Settlements**

- Settlements and billing initially 30-min
- Invoices, prudential and settlement estimation

**Staging Drop 3: All 5-min Settlement functionality**

- Prudential's and Settlements direct
- NEM prudential dashboard and Settlements direct, prudential forecaster and credit supports
- Global Settlement 5-min functionality turned on

**Pre-Prod Deployment:**

- Full 5-min capability will be available throughout all Settlements and Prudential's systems
- Configuration will allow us to set the date of 01/07/22 without further releases of software for:
  - 30/5-min transition
  - Non financial publication of UFE
  - Global settlement (2023)

**Production Deployment:**

- Full 5-min capability will be available throughout all Settlements and Prudential's systems
- Functional support for :
  - 30/5-min transition July 2022

**5MS Go Live:**

- Full 5-min capability will be available throughout all Settlements and Prudential's systems
- 30-min functionality continues for revisions etc.
- Non financial publication of UFE

**GS Go Live:**

- Global Settlement functionality which has been available since Go live will be switched on and used for Settlement calculations in the market

# Industry Testing Working Group update

Tui Grant

# Industry testing working group - update

- The last ITWG was substituted for a SWG discussion on the rule change.
- The upcoming ITWG will focus on
  - Discuss Settlements for staging with a view to commence 5 minute invoicing and discuss options for prudential payments
  - Walkthrough of the remaining deliverables for staging
  - Discuss the testing window for the new go-live date for retail in Pre Production
  - Discuss the changes proposed to industry testing (in the RWG pack) and what this means for participant testing

# Readiness Working Group update

Greg Minney

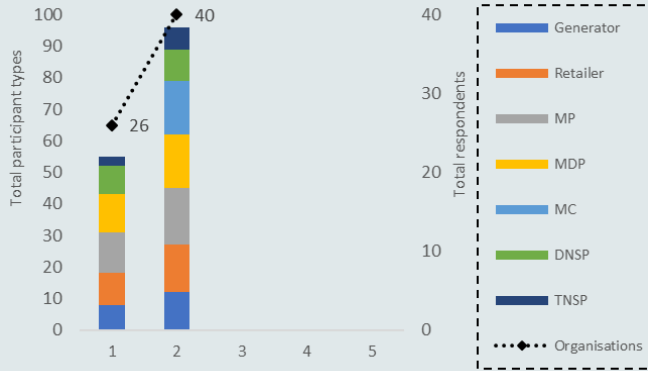
# Workstream engagement

## RWG #11 Conducted 14<sup>th</sup> May

- Consideration of Transition, Participant Testing and Metering Transition approaches to incorporate:
  - MDM go-live of 9<sup>th</sup> March
  - Potential Settlement platform deployment Feb 2021
  - Potential 5MS bidding platform deployment Nov 2020
- Consideration of Transition, Participant Testing and Metering Transition approaches under 12 month deferral scenario
  - AEMO internal program continues to its current milestones i.e. staged platform deployments to support current 5MS timeframes, including new MDM deployment date.
  - Participants should be provided with implementation flexibility where possible (*5MS/GS Transition and go-live strategy* principle) i.e. transition and testing scenarios should support participants' abilities to implement their programs **with or without** a deferral.
- Feedback from RWG to be discussed at next PCF



# Industry Readiness Reporting



- Increased response rate from participants to 2<sup>nd</sup> round of readiness reporting
- Specific questions regarding response to COVID-19
- Summary and overall report provided to RWG and PCF reps

**Overall program**

Status: **On track**

Trend:

Progress: 1-24% complete

- Overall industry progress and status remains at 1-25% and on-track, consistent with round 1. The downtrend reflects the number of response categories where subsets of participants are indicating emergent risks, issues and heightened uncertainty in comparison to the previous survey.
- Program delivery of 5MS and GS has progressed across the industry, with 27% of the industry now at 25-49% progress or more, compared to 8% two months ago in the previous round of reporting. Majority are on track, with 5 respondents noting that their program is at risk or late.
- An emerging theme among responses highlights the uncertainty created because of the rule change proposal, and varying degrees of impact from COVID-19. At the time of publication, AEMO notes that AEMC is still finalising rule change timelines, and that various 5MS working groups have are currently considering the potential impacts of the rule change.

# 5MS/GS Procedures update

Simon Tu

# 5MS/GS-related procedure change log

Procedure issue	Status
MDFP file size and transaction limit in file	<p>Initial feedback to first and second stage B2B procedures consultation showed majority support for:</p> <ul style="list-style-type: none"> <li>• MDFP file size 10MB</li> <li>• MDFP 1,000 transaction limit in file</li> <li>• non-contestable unmetered loads – use of existing B2B transactions for this family of NMIs</li> </ul> <p>Third round of consultation occurring for other matters, however above matters are confirmed.</p>
Proposed procedural change to MDFP quality flag (N flag)	<p>AEMO has submitted an ICF for ERCF consideration at March meeting (Thu 12 March). No objections presented at ERCF. Next steps: AEMO to compile a 'change information pack' for industry consultation for 15 May ERCF.</p>
Proposal for RWD[?]	<p><b>Meter read type code.</b> Consultation on issues paper closed Tue 31 March. Majority of responses support the concept to identify interval length. Suggestions have been received on what format this should be provided in to MSATS. Draft determination will be published Thu 14 May 20.</p>
Removal of end user details from inventory table	<p>AEMO will progress consultation. Dates TBC, likely to begin Aug/Sep. Follow up with ERCF rep for details.</p>
TNI 2 for cross-boundary meters	<p>While Participants don't have to populate the TNI2 field (AEMO will, similarly to NSP2), they will have to ensure that their systems can <b>receive</b> TNI2. Part of MSATS Standing Data Review. Consultation on issues paper closed Tue 31 March. Majority of responses support AEMO's proposal. Draft determination due Thu 14 May 20.</p>
Obligation for MC to provide updated or substitution data in the cases of theft or fraud	<p>Original ICF lodged by AGL. Discussed at ERCF March meeting. Relates to UFE calculation. Next steps: distribution of amended ICF and supporting questionnaire.</p>
Removal of register ID = suffix requirement	<p>ICF lodged by AusNet to ERCF for its consideration at next meeting on Fri 15 May 20.</p>
NCONUML objections to CR 2000/2001	<p>ICF to be lodged by Origin. Gap in procedures to be filled. ICF proposes that if an LNSP sets up a new NCONUML NMI and assigns it to a contestable MC, then the contestable MC can object to it as the MC is always the initial MC.</p>

# Metering procedures update

## Electricity Retail Consultative Forum - next meeting Fri 15 May 20

- 5MS/GS ICFs
- Update on MSATS standing data review
- ADL discussions - ongoing
- <https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Electricity-Retail-Consultative-Forum>

## B2B Working Group - recent meeting Tue 5 May 20

- Second draft stage (3<sup>rd</sup> round) of release v3.4 of B2B procedures consultation. All initial response agree with proposals for:
  - MDFF file size 10MB
  - MDFF 1,000 transaction limit in file
  - non-contestable unmetered loads – use of existing B2B transactions for this family of NMIs
- <https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/B2B-Working-Group>

# Forward meeting plan

Graeme Windley

# Forward Meeting Agenda

## SWG #23 Agenda – 17 June 2020

- Incl Retail Staging deployment – 2<sup>nd</sup> Drop

To add items to the agenda, please contact us at [5MS@aemo.com.au](mailto:5MS@aemo.com.au)

# Upcoming meetings

<https://aemo.com.au/initiatives/major-programs/nem-five-minute-settlement-program-and-global-settlement>

Current as 15 May 2020



## MAY

Su	Mo	Tu	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
31	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	1	2	3	4
5	6	7	8	9	10	11

## JULY

Su	Mo	Tu	We	Th	Fr	Sa
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	7	8

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

Focus Groups
Dispatch
Metering
Settlements
Transition
Reconciliation
Contingency
Industry Testing

Other
Information sessions
Q&A session
National Public Holiday
State Public Holiday*

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

# Retail stream update

Jim Agelopoulos



# Systems Workstream - Metering

Current as at 15-05-2020

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING									
	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	5MS Staging	Preprod	Production
<b>METERING</b>										
<b>PACKAGE 1 - Metering Data &amp; Metrology</b>										
MDFF • MDFF Specification NEM12 NEM13 v20	Aug-18	Oct-18	Oct-18	Nov-18	Jan-19	Apr-19	-	1-Dec-19	01-Feb-21	09-Mar-21
<b>PACKAGE 2 - MSATS &amp; SLPs</b>										
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	01-Feb-21	09-Mar-21
<b>PACKAGE 3 – Miscellaneous</b>										
B2M via API • MSATS Technical Specification	Oct-18	-	Apr-19	9-May-19	31-May-19	30-Sep-19	31-Jul-20	N/A	01-Feb-21	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	15-Jun-20	01-Feb-21	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-Aug-20	01-Feb-21	09-Mar-21



# Dispatch stream update

Ian Devaney



# Level 2 Milestones - Dispatch

Current as at 15-05-2020

Domain	Initiative	2019				2020				2021													
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
Dispatch																							
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct

## Key Milestones (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
L2-D2	Final technical specifications for Package 2 published by AEMO	31-Jul-2019	31-Jul-2019	Complete
L2D12	Final technical specifications for Package 4 published by AEMO	31-Jul-2019	31-Jul-2019	Complete
L2-D3	Software drop for Packages 1,2 & 3 in 5MS Staging Environment	29-Nov-2019	29-Nov-2019	Complete
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	In Progress
L2-D4	Development completed (internal)	31-May-2020	31-May-2020	

- Milestone complete
- Milestone on track
- Milestone at risk
- Milestone not achieved

# Dispatch Staging Release Drop 2 - 15<sup>th</sup> of May 2020

Ian Devaney / Tui Grant

# Dispatch – Functionality in Staging Release 2

## Pricing DDL

### Trading Price

- Calculation on Trading Price base off the 5-min dispatch price and no longer referencing 30-min trading interval.
- NEM Trading Reports
  - TradingInterconnect
  - TradingPrice
  - TradingRegionSum (to be stopped as part of 5MS, however, this is pending ETA 31st of May)
  - TradingLoad (to be stopped as part of 5MS, however, this is pending ETA 31st of May)
  - Average30 (Pending, ETA 31st of May)
  - Trading Price during price revision (Pending, ETA 31st of May)

### Rolling Sum Price

- From summation of 336 30-min intervals, it will now move to a summation of 2016 5-min intervals.
- Rolling Sum Price during price revision (Pending, ETA 31st of May)

### Market Suspension Pricing

- This is a pending release. (ETA 31st of May)

# Dispatch – Functionality in Staging Release 2

## APC Manager

- Monitors the Rolling Sum Price (RSP) against the Cumulative Price Threshold (CPT) by region and creates Administered Pricing events by region.
- Creates associated Market Notices records with event starts/ends and extensions
- The actual Market Notices are generated by the GeneralNotice Service.

## Negative Residue Manager

- No action required for Negative Residue Manager, this will remain the same.



# Data Model Impacts

Sangeeta Pai

# Settlements / Dispatch Data Model Impacts

- There are no major changes to the Data Model with this release.
- We have added a timestamp changes to below 2 tables:
  - DISPATCH\_MNSPBIDTRK - OFFEREFFECTIVEDATE
  - PREDISPATCH\_MNSPBIDTRK – OFFERDATE
- Below tables, PERIODID comments are updated
  - METER\_DATA.METERDATA\_AGGREGATE\_READS
  - METER\_DATA.METERDATA\_INDIVIDUAL\_READS
  - METER\_DATA.METERDATA\_INTERCONNECTOR
  - SETTLEMENT\_CONFIG.REALLOCATIONINTERVAL
  - SETTLEMENT\_DATA.SET Ancillary Summary
  - SETTLEMENT\_DATA.SETFCASREGIONRECOVERY
- In this drop we are not releasing a new version since the above changes are related to Oracle scripts only
- We will update these changes in the existing patch and the latest v5.0.0.1 release
- For the existing participants who are on v5.0.0.1 release, we will provide a script which they can apply to their staging database.

# Settlements stream update

Mark Hillaby

# Systems Workstream - Settlements

Current as at 15-05-2020





5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING									
	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	5MS Staging	Preprod	Production
<b>SETTLEMENTS</b>										
<b>PACKAGE 1 - Reallocations</b>										
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
<b>PACKAGE 2 - Settlements and Billing</b>										
Settlements	Oct-18	Nov-18	Dec-18	Mar-19	30-Aug-19	20 Dec 19	-	16 Mar 20	Feb-21	Apr-21
Billing	Oct-18	Nov-18	Dec-18	Mar-19	30-Aug-19	20 Dec 19	-	16 Mar 20	Feb-21	Apr-21
<b>PACKAGE 3 - Prudentials and Estimation</b>										
Prudentials	Sep-18	Nov-18	Dec-18	Mar-19	31-Oct-19	31 Jan 20	15 May 20	15 May 20	Feb-21	Apr-21
Estimation	Oct-18	Nov-18	Dec-18	Mar-19	31-Oct-19	31 Jan 20	-	15 May 20	Feb-21	Apr-21
Full Data Model	Refer DISPATCH									

# Level 2 Milestones – Settlements

Current as at 15-05-2020

Domain	Initiative	2019				2020				2021																									
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4																						
Settlements																																			
		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

Key Milestones (Program)				
ID	Milestone	Target Date	Expected Date	Status
L2-S1	Final technical specifications for Package 1 published by AEMO	15-Oct-2019	15-Oct-2019	Complete
L2-S2	Software drop for Package 1	01-Nov-2019	01-Nov-2019	Complete
L2-S3	Final technical specifications for Package 2 published by AEMO	15-Dec-2019	16-Dec-2019	Complete
L2-S4	Final technical specifications for Package 3 published by AEMO	31-Jan-2020	31-Jan-2020	Complete
L2-S6	Software drop for Package 2 in 5MS Staging Environment	16-Mar-2020	16-Mar-2020	Complete
L2-S7	Software drop for Package 3 in 5MS Staging Environment	15-May-2020	15-May-2020	In Progress
L2-S5	Development completed (internal)	31-May-2020	31-May-2020	On track

-  Milestone complete
-  Milestone on track
-  Milestone at risk
-  Milestone not achieved

# Settlements Staging Release Drop 3 May 2020

Mark Hillaby / Tui Grant

# Staging Environment Update

- Settlements Package 3 was deployed in the 5MS Staging Environment 16 March 2020. So far:
  - Week 1: 16<sup>th</sup> March to 20<sup>th</sup> March – 30 minute Prelim 2019Wk24 - **Completed**
  - Week 2: 23<sup>rd</sup> March to 27<sup>th</sup> March – 30 minute Finals 2019Wk25 and 2019Wk24 - **Completed**
  - Week 3: 30<sup>th</sup> March to 3<sup>rd</sup> April – 30 minute Revision 1 2019Wk25- **Completed**
  - Week 4: 6<sup>th</sup> April to 10<sup>th</sup> April – 30 minute Revision 2 2019WK16- **Completed**
  - Produced Tax Invoices, RCTI's, Statements, and Reconciliation (*SR, etc*) reports for both runs - **Completed**
  - Produced Data Interchange files for both runs - **Completed**
  - Identified an integration issue between Settlements Direct and Invoicing - **Resolved**
    - The invoicing engine has been updated and a new version tested and released into the Staging Environment
    - Some ongoing work is still required on Settlements Direct to finalise the issue
    - Until this issue is finalised, SR reports will not be available on the Settlements Direct portal without manual intervention
    - All other reports (Tax Invoice etc) are available on the Settlements Direct portal
- Settlements Direct Dashboard, Prudential Dashboard, Prudential Forecaster Dashboard and Credit Support Assessment Tool have been released as planned on the 15 May and are available for use.
- Based on feedback at the next ITWG we will proceed with the transition and 5-minute invoices is expected to commence in the first week of June. IWTG will also discuss options for the use of prudential data with a view to implement changes if required in early June.
- Post the completion of 5-minute invoices a review will then be undertaken with participants and a plan for global settlement examples will be published.





# Appendix 1: Staging – Further Details

Jim Agelopoulos

# Retail – Functionality in Staging Release 2

## 15 June 2020

### Objectives

- Allow all Participants to confirm connectivity of their test environments with the AEMO 5MS Staging Environment.
- Allow MDPs to confirm that MTRD CSV MDFF created by their systems for NEM Settlements and TUOS billing are able to pass new AEMO validations for NEM13 and NEM12 (30 min, 15 min and 5 min).
- Allow MDPs to confirm that MDMT CSV MDMF created by their systems for NEM Settlements are able to pass AEMO validations for Basic, Interval and Profile meters.
- Allow MDPs to validate FTP or API message exchange with the NEMMCO participant ID for MTRD and MDMT MeterDataNotifications.
- Allow Participants to confirm AEMO ingested meter reads

# Retail – Functionality in Staging Release 2

## Scope of functionality

Supported Functions	Staging Release 1		Staging Release 2	
	MTRD	MDMT	MTRD	MDMT
<b>Meter Types</b>	NEM12	No	NEM12 and NEM13	Interval, Profile and Consumption
<b>FTP Message Exchange</b>	Yes	No	Yes	Yes
<b>API Push Message Exchange</b>	No	No	Yes	Yes
<b>API Pull Message Exchange</b>	No	No	No	No
<b>View AEMO Ingested Meter Reads</b>	No	No	MSATS Browser > Metering Data screen	MSATS Browser > Metering Data screen
<b>Support for Transaction Bundling</b>	No	No	Yes	Yes
<b>aseXML schema support</b>	Current only	No	Current and Superseded	Current and Superseded

