

# 5MS & GS Systems Working Group #18

21 January 2020

# Agenda

No	Time (AEDT)	Agenda item	Presenter
1	10:00 – 10:10	Welcome, introduction and apologies	Graeme Windley
2	10:10 – 10:20	Actions update	Graeme Windley
3	10:20 – 10:25	Retail stream update	Jim Agelopoulos
4	10:25 – 10:40	aseXML schema update	Paul Lyttle
5	10:40 – 10:45	Dispatch stream update	Ian Devaney
6	10:45 – 10:55	<u>Dispatch Tech Spec</u>	Tom Butterworth
7	10:55 – 11:05	Data model for Dispatch & Settlements	Tom Butterworth
8	11:05 – 11:10	Settlements stream update	Mark Hillaby
9	11:10 – 11:15	Prudentials & Estimation Final Tech Spec	Pierre Fromager
10	11:15 – 11:20	Staging environment	Graeme Windley
11	11:20 – 11:25	ITWG update	Tui Grant
Brea	ak 11:25 – 11:35		
12	11:35 – 12:05	Risks discussion	Anne-Marie McCague
13	12:05 – 12:10	Readiness Working Group update	Greg Minney
14	12:10 – 12:15	Reallocations plans	Greg Minney
15	12:15 – 12:20	Metering Transition plan	Greg Minney
16	12:20 – 12:25	Procedures update	Emily Brodie
17	12:25 – 12:30	Forward meeting plan	Graeme Windley

# Open actions

Item	Action required	Responsible	Action update	Ву
1.6	AEMO to provide assessment on bandwidth/networking impacts.	AEMO	No identified impact  Design completed and AEMO has not identified any impacts. To be confirmed as part of Performance Testing.	Aug 2020
16.05.01	Feedback required by 2 weeks from Participants on MSATS 46.96 Participant role field change impact	SWG Participants	Feedback to be advised during meeting, then action closed.	SWG #18
16.10.01	Request feedback within 2 weeks from Participants on Dispatch Packages 1, 2, & 3 content	SWG Participants	Feedback to be advised during meeting, then action closed.	SWG #18



# Level 1 and 2 Milestones – timeline

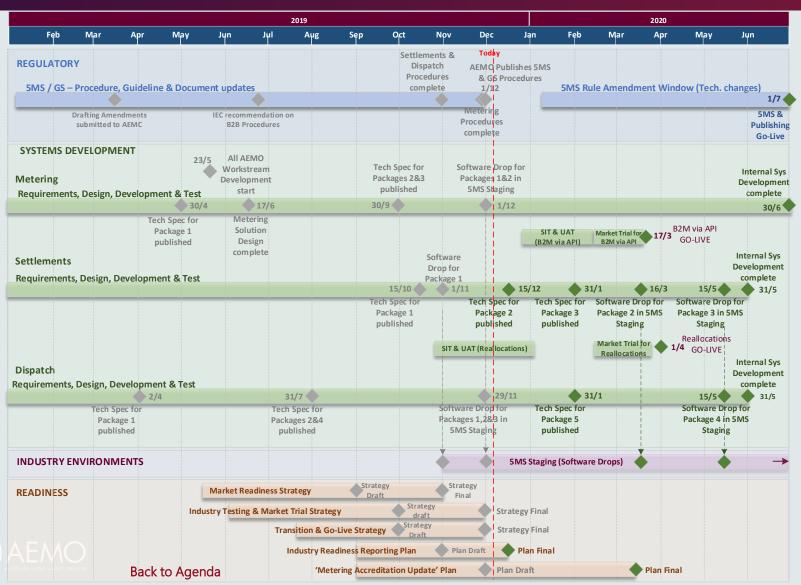
Graeme Windley



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# 2020)

# Level 1 and External Level 2 Milestones Current as at 06 Dec 2019



# Retail stream update

Jim Agelopoulos



# Systems Workstream - Metering

5 MINUTE SETTLEMENT	TIMING										
SYSTEMS TRACKING	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	5MS Staging	Preprod	Production	
METERING											
		P	ACKAGE 1 - Me	etering Data	& Metrolog	у					
MDFF  MDFF Specification NEM12 NEM13 v20	Aug-18	Oct-18	Oct-18	Nov-18	Jan-19	Apr-19	-	1 Dec 19	Sep-20	Nov-20	
			PACKAGE	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	Sep-20	Nov-20	
			PACKAGE	3 - Miscell	aneous						
B2M via API  MSATS Release Schedule & Technical Specification	Oct-18	-	Apr-19	9-May-19	31-May-19	30-Sep-19	17/02/2020 (TBC)	N/A	<del>17/02/2020</del> (TBA)	<del>17/03/2020</del> (TBA)	
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	Sep-20	Nov-20	
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	Sep-20	Nov-20	



# Systems Workstream - Metering

Key Mile	stones (Program)					
Х	Milestone	Description	Target Date	Expected Date	Status	Comments
L2-M1	AEMO internal metering solution – solution design complete (internal)	Solution Design phase for new AEMO Meter Data Management (MDM) and Profiling Allocation Engine (PAE) complete.	31-May-2019	17-Jun-2019	Complete	
L2-M2	Final technical specifications for Package 1 published by AEMO	Technical Specification for changes to MDFF NEM12 NEM13 as a result of 5MS and GS available to Participants.	30-Jun-2019	30-Apr-2019	Complete	
L2-M3	Final technical specifications for Package 2 published by AEMO	Technical Specification for changes to Transition, Meter Data Load – MDFF as a result of 5MS and GS available to Participants.	30-Sep-2019	30-Sep-2019	Complete	
L2-M4	Final technical specifications for Package 3 published by AEMO	Technical Specification for introduction of B2M via API as well as changes to the MSATS Browser (LVI) and MSATS Report changes as a result of 5MS and GS available to Participants.	30-Sep-2019	30-Sep-2019	Complete	
L2-M5	Software drop for Packages 1 & 2 in 5MS Staging Environment	Software deployed into the 5MS Staging environment for Meter Data Load – MDFF available for Participant testing.	01-Dec-2019	01-Dec-2019	Complete	
L2-M6	Agreement on requirements for accreditation & Market Trial	Program agreement of the Accreditation requirements and process, and on market testing requirements and process.	31-Mar-2020	[31-Mar-2020]		Aligned with the MSP Accreditation Plan document
L2-M14	B2M via API Go-Live	Software deployed into MSATS Production environment that supports B2M API for CATS, NMID and MDMT transactions.	17-Mar-2020	<del>[17-Mar-2020]</del> TBD		At Risk – Refer to Milestone Exception slide
L2-M7	AEMO internal metering solution – build complete (internal)	Build phase for new AEMO Meter Data Management (MDM) and Profiling Allocation Engine (PAE) complete	30-Jun-2020	30-Jun-2020		On Track
L2-M8	Software drop for Package 3 in 5MS Staging Environment	Software deployed into the 5MS Staging environment for B2M via API, MSATS Browser (LVI) and MSATS Report enhancements and available for Participant testing.	31-Jul-2020	31-Jul-2020		On Track
L2-M9	AEMO internal metering solution – go live complete (internal)	Go Live date for new AEMO Meter Data Management (MDM) and Profiling Allocation Engine (PAE) complete	31-Oct-2020	[31-Oct-2020]		On Track
L2-M10	New MDFF format accepted by AEMO	AEMO deploys MDFF capable software to PROD, and all Market Participants can begin submitting files in the new MDFF format.	01-Nov-2020	[01-Nov-2020]		Dependent upon readiness strategy
L2-M11	Market Trial preparation completed by Participants	All Market Participants who are required to submit five-minute meter reads are ready for market trials	30-Nov-2020	[30-Nov-2020]		Content and timing of Market Trials TBD
L2-M12	Market Trial preparation completed by AEMO	AEMO has deployed all relevant software to the 5MS pre- Production environment and is ready to deliver the agreed Market Trial scenarios	30-Nov-2020	[30-Nov-2020]		Content and timing of Market Trials TBD
L2-M13	Market Trials conclude	All relevant Market Participants have completed Market Trials to submit five-minute read data.	31-May-2021	[31-May-2021]		Content and timing of Market Trials TBD

# Systems Workstream - Metering

ID	Stream	Milestone	Planned Date	Expected Date	%	Comments
New L2-M14	Metering	B2M via API Go Live	17-Mar-20	<del>17-Mar-20</del> TBD	70%	AEMO has experienced delays establishing the MarketNet link to AEMO's new API Gateway in conjunction with the legacy SMP e-Hub API Gateway. The 17 <sup>th</sup> of March Go-Live is now almost certain not to be achieved. An update with a new target will be presented to and discussed at the PCF on 4 February 2020.  Request Participants impacted by a delay to this date to contact the 5MS Program via the mailbox to set up a discussion.



# aseXML schema update

Paul Lyttle



## aseXML schema update

The following aseXML schema updates for 5MS have been identified

- Inclusion of new RM Reports to support 5MS and GS
- Update "Last Sequence Number" field to optional
- Addition of X of Y messages when multiple message responses are sent
- Addition of a Second TNI (TNI2) code to support Cross Boundary NMIs
- Addition of details where NMI Data Streams reads have Multi Use e.g. Vic TUoS



### New RM Reports

A number of new RM reports are planned to support 5MS and GS. These reports include:

- RM37 High Priority Missing Data
  - Related to missing data for Transmission connected NMIs
- RM38 Datastream Missing Data
  - Identifies where reads have not been delivered for Net ('Nx') NMI data streams
- RM39 Mismatch Data
  - Identifies where reads have been received for NMIs or Datastreams that are not registered in the Standing data set
- RM43 UFE Factor by Local Area
  - Identifies the UFE factor which can be used to calculate the UFE value for NMIs within each Local Area
- RM46 UFE Validation
  - Provides details to validate calculation of Local Area UFE and UFE factors

#### **Impacts**

- Release of report logic to MDM may not be available at MDM go live
  - A separate schedule will be provided advising of when each report will be introduced into production
- Remaining on existing schema (Superseded)
  - Participants will be unable to Request or Receive new report types



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## Last Sequence Number

To enable the sending of all report results for each RM report request, the Last Sequence Number will no longer be required

- Last Sequence Number field will be set to Optional
  - This allows for backwards schema compatibility

#### **Impacts**

- Population of Last Sequence Number will not be used for report generation
  - AEMO recommends that the Last Sequence Number be set to 0 is sent
- Each RM report request sent will receive all reporting results
  - AEMO recommends for Participants to remove any automation that requests multiple reports
- Remaining on existing schema (Superseded)
  - Participants will need to populate the Last Sequence number field to be schema valid.



# Addition of x of y messages

With the delivery of multiple files to support RM report responses, multiple response messages will include the x of y information.

- When multiple response files are sent to a Participant, the x of y information will be provided
  - If 3 response files are created the x of y will be:
    - 1 of 3, 2 of 3, 3 of 3

#### **Impacts**

- Participants will be able to identify if any response files are missing
  - If a file is missing, a new request can be raised which will provide a full set of results
- Remaining on existing schema (Superseded)
  - Participants will need to identify if all files have been received by the Seq No within each file.



### Second TNI code

To remove the need to create two NMIs for a cross boundary connection point, a second TNI code will be included into NMI standing data

- The Second TNI (TNI2) will only be populated for cross boundary connection point
  - AEMO will populate the TNI2 value when the NSP2 value is added

#### **Impacts**

- Participants will be able to identify the TNI2 code for NMIs
  - Participants will be able to identify the energy flow for the Transmission connection
- Remaining on existing schema (Superseded)
  - Participants will not receive the TNI2 data in any responses
  - TNI2 values will be available via the MSATS Browser



### Multi Use NMIs

The use of MDFF reads for settlements data stream suffices the need to have the NMI data stream type updated.

AEMO are currently investigating the impacts relating the Vic TUoS NMI investigate with the key MDP

#### **Impacts**

 A decision will be made on the requirement to include additional details for multi use NMIs



### aseXML Schema Changes – Schedule

#### Current Proposed schedule (updated) – [Note: All dates are TBC]

End Jan 2019

• Schema Change Proposal submitted – Including sample schemas (Late Jan)

eb- Apr 2020

- ASWG review, consult and approve new schema
- approx timeline 3 months

Apr 2020

- Consultation Final Determination Published
- Participants have certainty around solution

Apr – Jul 2020

- AEMO Development / Testing / UAT
- approx timeline 4 months

Aug - Sep 2020

- Pre-Production Market Testing
- Participant Testing

Q3 2020 • Production Go-Live Includes Customer Switching changes.



# Dispatch stream update

Ian Devaney



# 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 -	Bidding FTP	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 Web 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	
		PAC	KAGE 3 - Dispat	tch, Pre-disp	atch 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	
		F	PACKAGE 4 - Pri	cing 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	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	



## Level 2 Milestones - Dispatch

Key Milestones (Program)									
ID	Milestone	Description	Target Date	Expected Date	Status	Comments			
L2-D1	Final technical specifications for Package 1 published by AEMO	Technical Specification for changes to Dispatch, Pre-dispatch P30/7DAY, ST PASA, Bidding Data Model and Bidding Format as a result of 5MS and GS available to Participants.	2-Apr- 2019	2-Apr- 2019	Complete				
L2-D2	Final technical specifications for Package 2 published by AEMO	Technical Specification for changes to the Bidding Web UI and APIs as a result of 5MS and GS available to Participants.	31-Jul- 2019	31-Jul- 2019	Complete				
L2-D3	Software drop for Packages 1,2 & 3 in 5MS Staging Environment	Software deployed into the 5MS Staging environment for Dispatch, Predispatch P30/7DAY, ST PASA, Bidding Data Model and Bidding Format, Bidding Web UI and APIs and Predispatch P5.	29-Nov- 2019	29-Nov- 2019	Complete				
L2-D4	Development completed (internal)	Software deployed into the 5MS Staging environment for RERT, Trading Price / Price Revision, Administrated Pricing and CPT, Suspension Pricing, Negative Residue Management, data model for Dispatch	31-May- 2020	31-May- 2020	[Firm]				
L2-D5	Software drop for Package 4 in 5MS Staging Environment	All AEMO internal development work has completed for the Dispatch stream	15-May- 2020	15-May- 2020	[Firm]				
L2-D6	UAT completed (internal)	All AEMO internal UAT has completed for the Dispatch stream	30-Nov- 2020	30-Nov- 2020	[Firm]				
L2-D7	Market Trial preparation completed by Participants	All Market Participants who are required to submit 5MS bids and offers are ready for market trials	30-Nov 2020	[30-Nov 2020]	Provisional	Content and timing of Market Trials TBD			
L2-D8	Market Trial preparation completed by AEMO	AEMO has software deployed to pre-production environment and is ready to deliver the agreed Market Trail scenarios	30-Nov 2020	[30-Nov 2020]	Provisional	Content and timing of Market Trials TBD			
L2-D9	5-min bidding phased go live begins	Participants can begin submitting 5-min bids to the market	01-Apr- 2021	[01-Apr- 2021]	Provisional				
L2-D10	Market Trial concludes	Market Trial scenarios related to dispatch have been completed	31-May- 2021	[31-May- 2021]	Provisional	Content and timing of Market Trials TBD			
L2-D11	30-min bidding no longer accepted by AEMO	All Wholesale Market Participants now submitting five-minute bids and offers to AEMO	01-Jul- 2021	01-Jul- 2021	Mandatory				
L2-D12	Final technical specifications for Package 4 published by AEMO	Technical Specification for changes to Pricing (and Miscellaneous) as a result of 5MS and GS available to Participants.	31-Jul- 2019	31-Jul- 2019	Complete				
L2-D13	Final technical specifications for Package 5 published by AEMO	Technical Specification for changes to the full data model as a result of 5MS and GS available to Participants.	31-Jan- 2020	31-Jan- 2020*	[Firm]				



# Dispatch Tech Spec

Deborah Armenante



### Dispatch Tech Spec – Version 2.01

- 1. Removal of the proposed timeline. The Readiness Working Group (RWG) will confirm delivery dates
- 2. Added Related rules and procedures on page 8
- 3. Addition of the FTP address for the staging environment, see FTP Interfaces on page 14
- 4. Addition of the staging environment URL for the Energy and FCAS Bids web interface, see EMMS Markets Portal on page 18
- 5. Added the API gateway addresses for MarketNet and internet, and the e-Hub portal address, see APIs on page 19
- 6. Information about increased data volumes in the Bids tables, see Electricity Data Model 5.00 on page 45
- 7. Further detail for Data Model discontinued reports, see Discontinued reports on page 67
- 8. A link to information about the 5MS staging environment, see References on page 71
- 9. RampUpRate in JSON Bidding schema changed to RampRateUp, see Appendix Bidding JSON Format on page 76
- 10. Changes to Participant interface changes on page 62
- 11. Changes to Discontinued reports on page 67
- 12. RampDownRate in JSON Bidding schema changed to RampRateDown, see Appendix Bidding JSON Format on page 76



### Dispatch Tech Spec – Version 2.01

Package	Table	Field	Change
BIDS	BIDDAYOFFER  MNSP_DAYOFFER	REBID_EVENT_TIME	Confirmed as VARCHAR2(8)
	WINST_DATEN	REBID_AWARE_TIME	Confirmed as VARCHAR2(8)
		REBID_DECISION_TIME	Confirmed as VARCHAR2(8)
	BIDOFFERFILETRK	SUBMISSION_DATE	Changed to SUBMISSION_TIMESTAMP
	BIDOFFERPERIOD	OFFERDATE	Changed to OFFERDATETIME
	MNSP_BIDOFFERPERIO D	OFFERDATE	Changed to OFFERDATETIME
DISPATCH	DISPATCHLOAD	PERIODID	Removed
	DISPATCHREGIONSUM		There are no changes to the DISPATCH package for this Release
FORCE_MAJEURE	REGIONAPCINTERVALS		Only the comment changes to reflect the change of trading price from a 30-minute to a 5-minute resolution  There are no other changes to the FORCE MAJEURE package



### Dispatch Tech Spec – Current Published Version

- 1. In Energy, FCAS, and MNSP bidding on page 9 the following bullet point changes to add more clarity:
  - In the current csv format, to indicate no value for optional fields, they are left blank.
  - 2. In the JSON format, to indicate no value for optional fields, you must remove the entire attribute.
- 2. For the Energy and FCAS eventTime field an invalid value results in AEMO rejecting the submission.
- eventTime changes to type: string.
- submissionTimestamp changes to type: string
- 5. The FCAS property EnablementMin for APIs changes from optional to mandatory.
- 6. The tradingDate type in the Bidding Schema changes from Date to String.
- 7. The type: number changes to type: integer.
- 8. For APIs, added Rebid explanation on page 85.



### Dispatch Tech Spec – Current Published Version

AVERAGEPRICE30 The following fields are added:  1. PRICE_CONFIDENCE	
1. PRICE_CONFIDENCE	
2. PERIODID (for discussion)	
The following fields are removed:	
1. RUNNO	
2. ROP	
3. EEP	
4. RAISE6SECROP	
5. RAISE60SECROP	
6. RAISE5MINROP	
7. RAISEREGROP	
8. LOWER6SECROP	
9. LOWER60SECROP	
10. LOWER5MINROP	
11. LOWERREGROP	
12. RAISE6SECRRP	
13. RAISE60SECRRP	
14. RAISE5MINRRP	
15. RAISEREGRRP	
16. LOWER6SECRRP	
17. LOWER60SECRRP	
18. LOWER5MINRRP	
19. LOWERREGRRP	

# Data model for Dispatch Version 5.0

Tom Butterworth



## Data model for Dispatch

At the last SWG AEMO (Dispatch) sought feedback from Participants regarding the following:

- 1. The 5MS rule change (3.13.4 (I1)) requires AEMO to publish "In addition to the spot price, a 30-minute price for a regional reference node".
  - a. Two responses requested FCAS prices. AEMO still cannot understand the benefit of this as the FCAS market has always been defined as a 5-minute market. AEMO will only publish Energy prices
- 2. Submissions will be limited ('throttled') to one per second, to ensure primary key integrity (currently only unique to the nearest second).
  - a. For Oracle databases, the bidding OfferDate field uses the 'Date' data type. Changing this to a 'Timestamp' datatype would alleviate the restriction (although 'throttling' would still be in place to prevent 'flooding').
- 3. The PeriodID not required for tables 'DispatchLoad' and 'DispatchRegionSum'.
  - 1. The existing DispatchInterval fields define PeriodId in the format yyyymmddppp for Trading Dates remember these are Trading date tables.



## Data model for Dispatch

To enable more than one submission per second the new fields BidOfferPeriod.OfferDateTime and MNSP\_BidOfferPeriod.OfferDateTime are data type 'TIMESTAMP'

For this to be effective we must also change the OfferDate fields from 'DATE' to 'TIMESTAMP' in the existing tables:

- BidOfferFileTrk
- BidDayOffer
- MNSP\_DayOffer

This change will apply to existing tables. Participants must be aware of this and manage their Bids transition from 30-minute to 5-minute.



# Settlements stream update

Mark Hillaby



# Systems Workstream - Settlements

5 MINUTE SETTLEMENT		TIMING										
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 - Reallocations												
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 - Settlements and Billing											
Settlements	Oct-18	Nov-18	Dec-18	Mar-19	30-Aug-19	20 Dec 19	-	16 Mar 20	Nov-20	May-21		
Billing	Oct-18	Nov-18	Dec-18	Mar-19	30-Aug-19	20 Dec 19	-	16 Mar 20	Nov-20	May-21		
		PAC	CKAGE 3 - Prud	entials and I	Estimation							
Prudentials	Sep-18	Nov-18	Dec-18	Mar-19	31-Oct-19	31 Jan 20	15 May 20	15 May 20	Nov-20	May-21		
Estimation	Oct-18	Nov-18	Dec-18	Mar-19	31-Oct-19	31 Jan 20	-	15 May 20	Nov-20	May-21		
Full Data Model	Refer DISPATCH											



# Prudentials Tech Spec

Pierre Fromager



# Prudentials Tech Spec

- 'Estimation' was mentioned with Prudentials. However, Metering Estimation (previously called Settlement Estimation) was identified as not impacting on Participants. It is an internal AEMO process, with no impact on Participant interfaces or data model tables. It was therefore removed from the Tech Spec altogether. The changes are limited to code base changes, DB changes and granularity (30 to 5 min) changes so no material changes.
- Unlike other APIs, the prudential APIs were written firstly for use by the AEMO development team to re-build the functionality for the prudential dashboard. These APIs therefore offer all the information that permits the dashboard to present that information to the users. AEMO then deemed it worthwhile to share these APIs with Participants.
- This is more extensive than what is available through the data model because the latter is limited due to data volume.
- The data model only provides the company position summary. This is not changing so will not be mentioned in the Tech Spec.
- Changes to the dashboards are limited to technology (new APIs, new DBs, some bug fixes and slight UI enhancements, including look and feel).



# Staging environment

Graeme Windley



# Status of 5MS Staging Environment

- Preparation is underway to prepare for the next set of deliverables to the staging environment in March related to Settlements
- Support calls regarding this environment are minimal and still relate primarily to user password resetting and requests for FTP and API access



# Industry Test Working Group update

Tui Grant



# Industry Test Working Group update

Participants are in agreement with the proposed testing levels AEMO has proposed for each of the releases scheduled for the 5MS and GS program.

- The first release is B2M API with a handful of Participants volunteering to assist with industry testing. A meeting to prepare a test plan for this release has been planned and will be presented to the ITWG next meeting.
- The second release is reallocations which will be deployed into Staging in March prior to the go live date in April. AEMO have completed SIT an UAT of this release and will release it into staging but will not be performing any coordinated testing with Participants. Any Participant wishing to test prior to the production deployment is welcome to access this release in Pre Prod.



# Break (10 mins)



### Risks discussion

Anne-Marie McCague



#### Risks discussion

- Refresh of 5MS Risk and Issue Process:
  - Key and new risks and issues are presented to the PCF monthly
  - Full Risks and Issues Register is reviewed by the PCF quarterly
  - New risks and issues are discussed at Working Groups before they are added to the register
  - Risks and Issues Register is published quarterly (after PCF review) on the 5MS
     Program website under Program Management > Program Consultative Forum
     (PCF)
- Aim today: review risks relating to SWG prior to PCF quarterly review 4
   Feb
- Summary
  - Currently no open risks raised by SWG
  - 8 risks owned by Systems Workstream or Manager
  - 2 Critical risks and 6 Significant risks (rating without controls)



# Readiness Working Group update

**Greg Minney** 



#### Readiness papers - timelines

ltem	RWG/ITWG/FG engagement	Draft paper	Consultation	Comments due	Final paper
Industry test and market trial strategy	Jul-19	30-Sep	4 weeks	28-Oct	29-Nov
Transition and go-live strategy	Jul-19	30-Sep	4 weeks	28-Oct	29-Nov
Metering transition plan	Aug-19 onwards	29-Nov	3 weeks	20-Dec	7-Feb-20
Industry contingency plan	Nov-19	20-Dec	6 weeks	31-Jan-20	13-Mar-20
Industry readiness reporting plan	Sep-19	31-Oct	3 weeks	21-Nov	13-Dec
MSP accreditation update plan	Oct-19	29-Nov	11 weeks	31-Jan-20	21-Feb-20

NOTE: early feedback on documents is welcome



#### Workstream engagement

- Contingency Planning
  - Draft plan issued on 20th Dec
  - Consultation in progress
  - Utilise existing market contingency approaches where applicable
- Readiness Reporting
  - Approach finalised
  - Initial readiness survey to be distributed end Jan
  - Reporting criteria differentiated by Participant type
- Metering Transition Plan
  - Consultation completed 20<sup>th</sup> December
  - Feedback from 7 Participants (MSP,LNSP, Retailer)



# Reallocations plans

**Greg Minney** 



#### Reallocations plans

- On track for implementation 1 April
  - Industry test availability from 1 March
- Release involves the introduction of new (additional) capability to current market systems
- Integrated cutover plans not required
  - No existing Participant interfaces require update at cutover
  - No data conversion to be performed at cutover
- AEMO will
  - Deploy the capability into production once testing and assurance successfully completed
  - Confirm successful deployment of capability and production availability
- Participants can deploy in-line with their own program delivery
  - Participant deployment of capability is optional and occurs after AEMO systems have been deployed
  - As usual, the pre-prod environment will be available for Participant testing once the releases are in production



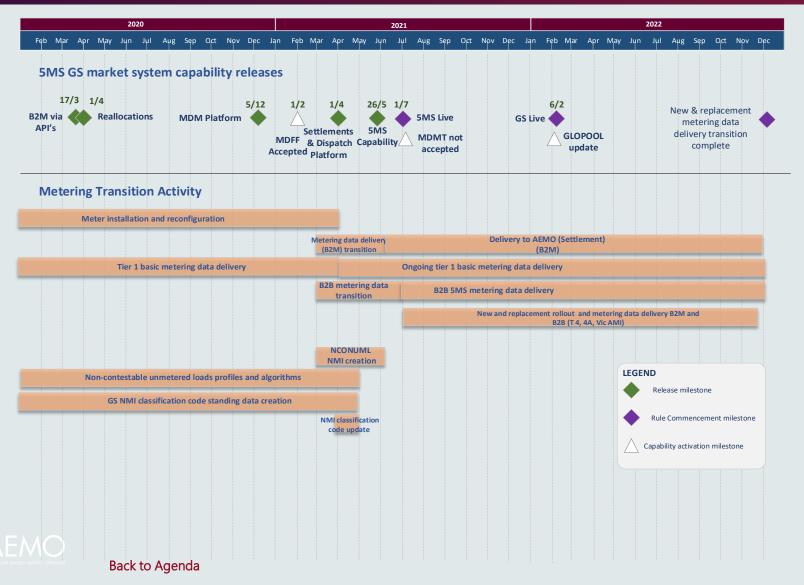
# Metering Transition plan

**Greg Minney** 



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#### Metering Transition - draft



#### Metering Transition plan

- Draft circulated 29 November 2019, comments received 20 December
- The MTP "Categories" are
  - Meter installation and reconfiguration
  - Metering data delivery (B2M & B2B)
  - MSATS standing data creation and maintenance
  - MSP accreditation updates
- Responsibilities and expected timeframes for metering activities to support transition to 5MS and GS
- Key areas for consideration from feedback
  - Participant rollout plan visibility and associated volume impacts
  - Timing and agreement on 5 minute delivery (B2B)
  - Transition activity timeframes (start and finish)



## 5MS/GS procedures update

**Emily Brodie** 



#### Metering procedures update

Metering package #3 published Mon 18<sup>th</sup> November



- ERCF
  - Meeting currently quarterly; then every two months in 2020
  - Met on 21 November
  - 5MS/GS ICFs: RWD5; customer details on inventory table
  - <a href="https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Electricity-Retail-Consultative-Forum">https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Electricity-Retail-Consultative-Forum</a>
- B2B
  - Meets monthly (IEC meets quarterly)
  - Met on Fri 29 November
  - Release v3.4 of B2B procedures commenced consultation. Considers:
    - 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
  - <a href="https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/B2B-Working-Group">https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/B2B-Working-Group</a>



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#### 5MS/GS-related procedure issues

Procedure issue	Status
Proposed Procedural Change to MDFF Quality flag	AEMO is preparing an ICF for ERCF consideration
Proposal for RWD5	ICF considered at ERCF (21 Nov), to be progressed in 2020 with consideration of 5MS/GS metering transition activities
Sampling and verification processes	ICF submitted with accidental reference to 5MS but is unrelated to 5MS
Removal of end user details from inventory table	ICF considered at ERCF (21 Nov), to be progressed in 2020 with consideration of 5MS/GS metering transition activities
TNI 2 for cross-boundary meters	SWG has been briefed on requirements.
	Procedure change not required, but procedure clarification desirable.
	AEMO is preparing an ICF for ERCF consideration, with a view to including in Standing data review consultation (Feb to June 2020)



# Forward meeting plan

Graeme Windley



#### Proposed upcoming SWG meeting content

Date	Meeting	Proposed content
Mon 17 Feb 2020	SWG #19	• Topics tba
Mon 16 Mar 2020	SWG #20	• Topics tba



# Upcoming meetings

https://aemo.com.au/Ele ctricity/National-Electricity-Market-NEM/Five-Minute-Settlement

#### 2020

				JA	NUA	RY
Su	Мо	Τυ	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
			22			
26	27	28	29	30	31	1
2	3	4	5	6	7	8

				1	۸AR	СН
Su	Мо	Tu	We	Th	Fr	Sa
			4			
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	2	Q	10	11

				FEB	RUA	RY
Su	Мо	Τυ	We	Th	Fr	Sa
26	27	28	29	30	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
1	2	3	4	5	6	7

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

Focus Groups			
Dispatch	Metering		
Settlements	Transition		
Contingency	Reconciliation		

Other
Information Sessions

National Public Holiday
State Public Holiday\*

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

Current as at 13 Jan 2020



