

5MS & GS Systems Working Group #20

16 March 2020

Agenda

No	Time (AEDT)	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 – 10:20	Program update	Graeme Windley
4	10:20 – 10:30	Reallocations Deployment	Alex Alexander
5	10:30 – 10:40	Staging environment	Tui Grant
6	10:40 – 10:50	Industry Testing Working Group update	Tui Grant
7	10:50 – 11:00	Readiness Working Group update	Greg Minney
8	11:00 – 11:10	Procedures update	Simon Tu
9	11:10 – 11:20	Forward meeting plan	Graeme Windley
Stream Updates			
10	11:20 – 11:30	Retail stream update	Jim Agelopoulos
11	11:30 – 11:40	Impact of MSATS Standing Data Review (MSDR) impact on 5MS & GS	Paul Lyttle
12	11:40 – 11:50	Rejection of Metering data sent by a MDP not in the MDP role	Simon Tu
13	11:50 – 12:00	MTRD ParticipantRole Element	Simon Tu
14	12:00 – 12:10	Participant Id update for GS	Paul Lyttle
15	12:10 – 12:20	Dispatch stream update	Ian Devaney
16	12:20 – 12:30	Settlements stream update	Mark Hillaby
17	12:30 – 12:40	5MS inbox feedback	Pierre Fromager
18	12:40 – 12:50	Data Model updates for Dispatch & Settlements	Sangeeta Pai
19	12:50 – 1:00	Data Model Delivery Timing (date & timing presentation)	Ian Devaney
20	1:00	Meeting Close	Graeme Windley

Open actions

Item	Action required	Responsible	Action update	By
19.4.1	AEMO to confirm how the UFE artificial data will be created at the next SWG.	AEMO	Update to be provided at the SWG#20.	16/03/2020
19.7.1	AEMO to confirm the RWD proposal focus at the next SWG.	AEMO	Update to be provided at the SWG#20.	16/03/2020
19.9.1	AEMO to report back at the next SWG meeting whether the MSATS Standing Data Review program will impact the 5MS program.	AEMO	Update to be provided at the SWG#20.	16/03/2020
19.10.1	AEMO confirmed that it would provide the list of schema changes published by the ASWG to the SWG via email.	AEMO	Complete – circulated to the SWG on 13 Feb and 21 Feb 2020.	16/03/2020
19.12.1	Participants that will use the web screens to start using them in the 5MS Staging Environment to provide AEMO insight on how they will respond in the pre-production environment.	Participants	Update to be provided at the SWG#20.	16/03/2020
19.12.2	AEMO will confirmed the data model dates at the next SWG	AEMO	Complete - Emailed to the SWG on 3 Mar 2020.	16/03/2020

Program update

Graeme Windley

Program update and current activities



AEMO program

- Overall green.
- Realignment of key milestones post-Readiness work complete.
- L2-S8 Industry Test start for Reallocations complete with the deployment of the reallocations functionality into pre-PROD 26 Feb 2020.



Systems

- 5MS working with Customer Switching & Industry participants to define appropriate approach for both programs.
- The Settlements & Billing Tech Spec has been re-released to participants (14-Feb-2020). Communication on the Data Model within this pack.
- Internal retail, dispatch and settlements workstreams systems development on track to meet 30-Jun-2020 development completion date.



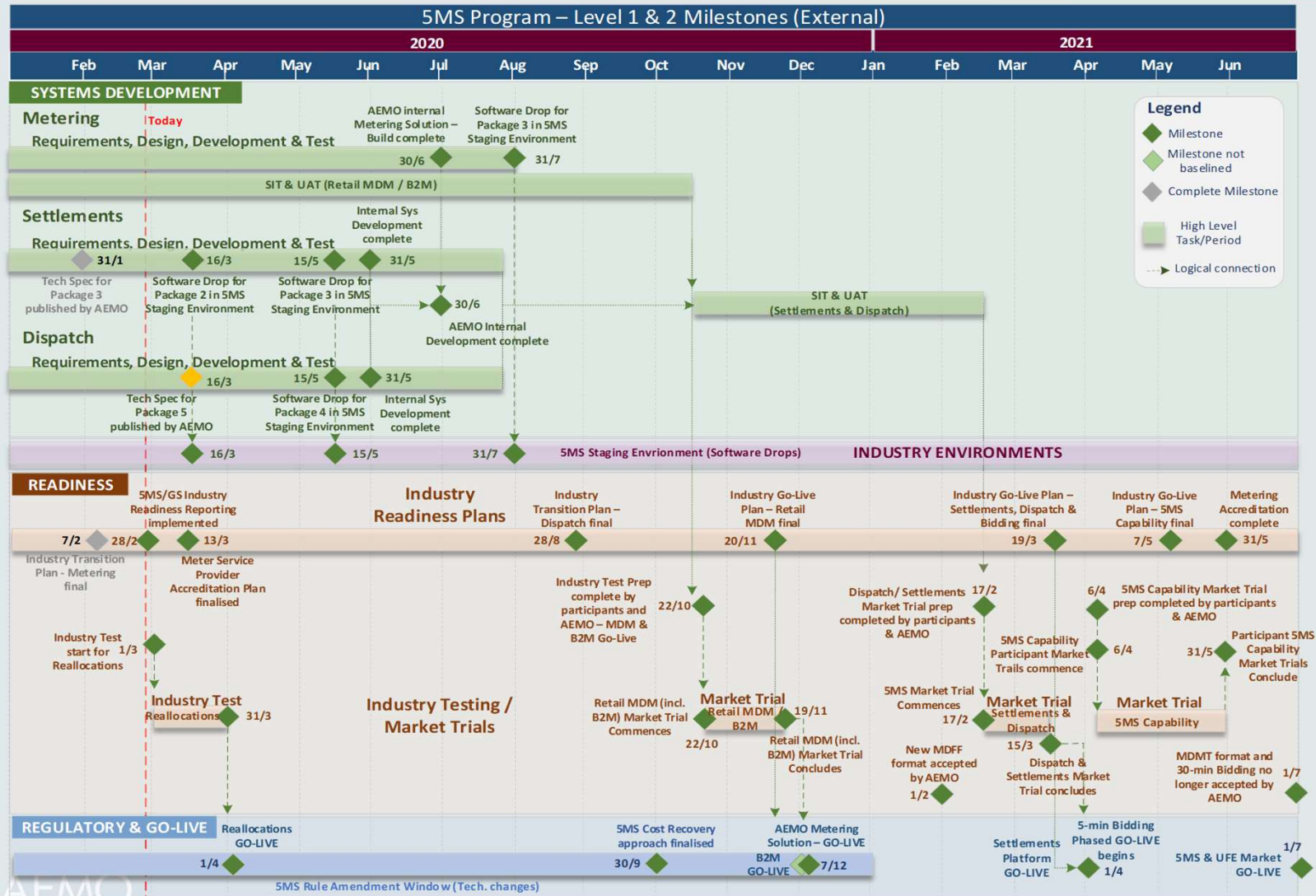
Readiness

- Metering Transition Plan was published on 7 Feb 2020 and the Metering Service Provider Accreditation Update Plan on 18 Feb 2020.
- The Industry Readiness Contingency Plan is due to be finalised on 13 March 2020.
- Initial Readiness Reporting – draft report to be circulated to RWG on 2 Mar 2020 for review and discussion.

5MS Program Timeline (Jan '20 to Jul '21)

Level 1 and External Level 2 Milestones

Current as at 28-02-2020



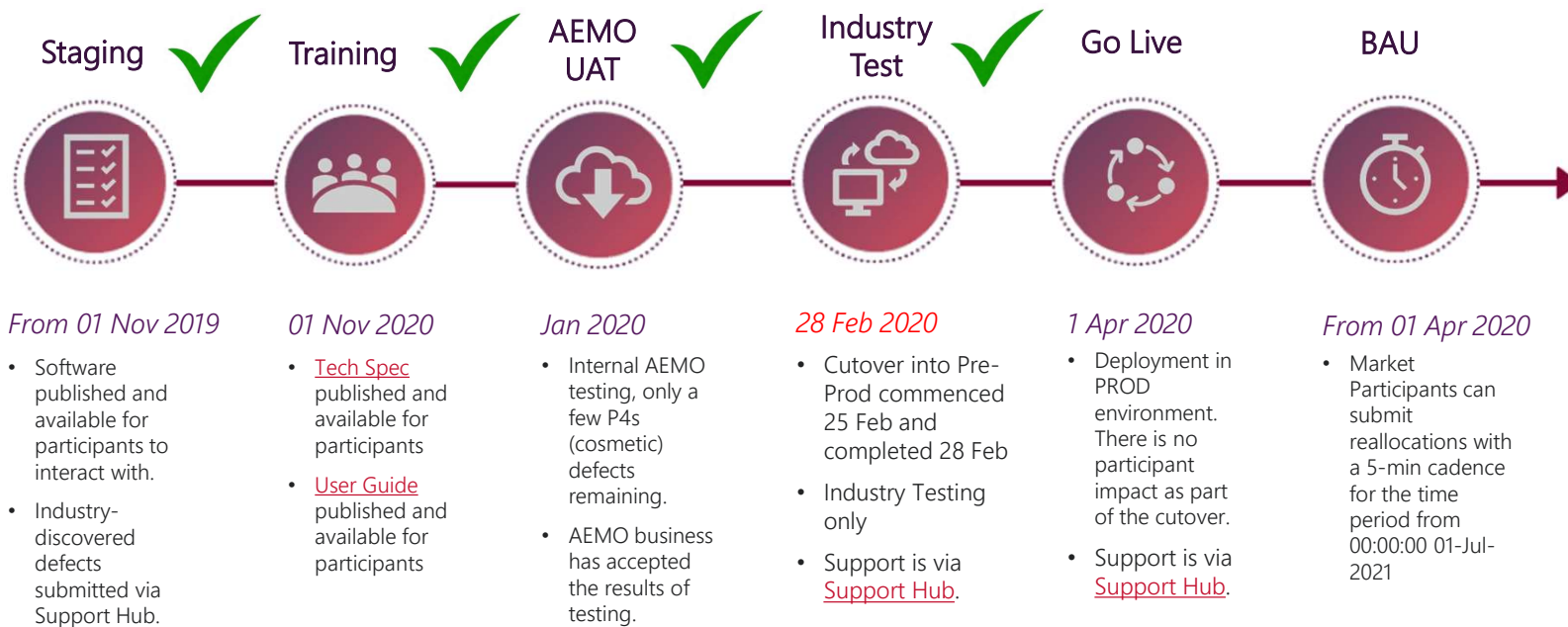
Level 2 Milestones Exceptions (External) Current as at 28-02-2020

ID	Stream	Milestone	Planned Date	Expected Date	%	Comments
L2-M14	Metering	B2M via API Go Live	17-Mar-2020	07-Dec-2020	70%	Communicated to the PCF and SWG as part of impact assessment. Feedback confirmed that this milestone could be rebaselined as 7 December 2020.
L2-D13	Dispatch	Final technical specifications for Package 5 published by AEMO	31-Jan-2020	16-Mar-2020		Delayed due to alignment with Settlements Staging deployment.

Reallocations deployment

Alex Alexander

5MS Release 1: Reallocations



5MS Release 1: Reallocations

- Pre-PROD Cutover completed 28 Feb 2020 due to PVT delays.
- Issues
 - Participant access to MSATS had to be updated in pre-PROD before participants could complete PVT. AEMO internal Change Request has been raised for PROD to ensure participant access in Prod is up to date prior to 1/4/20 PVT and go-live. Participants will be prompted prior to 1/4/20 to verify and if required update their access settings.
 - New Reallocations screens worked ok using Chrome but had issues with MS Edge.
 - Performance issues with participants accessing Reallocations data (response times >1 minute). Issue due to 10 years of data being made available instead of 12 weeks. Changing the range down to 12 weeks has resulted in much better response times (1-2 sec)

Staging environment

Tui Grant

5MS Staging Environment Update

Dispatch	Settlements	Metering
<p><u>DROP ONE – 29 November 2019</u></p> <p>Submit 5-Min Bids, via new web interface, API and/or FTP</p> <p>Bidding Data Model changes as per technical specifications released July 2019</p> <p>Case Loaders for PASA, Dispatch, 5-minute Pre-Dispatch & 30-minute Pre-Dispatch data</p>	<p><u>DROP ONE – 1 November 2019</u></p> <p>Reallocations: available at both 30 and 5-min intervals</p> <p>New Web UI</p> <p>Calendar selection</p> <p>Alerts</p>	<p><u>DROP ONE – 1 December 2019</u></p> <p>Test connection to Staging</p> <p>Test MDFF validations</p> <p>Validate data exchange</p>
<p>Status: Live</p> <p>Participant interaction: at least 6 participants accessing in Jan 2020.</p> <p>Issues: issues related to the tech specs, now addressed.</p> <p>API connectivity issues for some participants.</p>	<p>Status: Live</p> <p>Participant interaction: at least 6 participants accessing in Jan 2020.</p> <p>Issues: incorrect setup by participants of their user roles.</p>	<p>Status: Live</p> <p>Participant interaction: 2 participants accessing in Jan 2020.</p> <p>Issues: None identified.</p>
<p><u>DROP TWO – 15 May 2020</u></p>	<p><u>DROP TWO – 16 Mar 2020</u></p>	<p><u>DROP TWO – 31 July 2020</u></p>
<p>Status: On track</p>	<p>Status: See next slide</p>	<p>Status: On track (noting some functionality will be introduced earlier)</p>

Staging Environment Update

- Settlements Package 3 is due to be deployed in the 5MS Staging Environment 16 March 2020.
- Key Points to note:
 - Input data for each of the settlement/billing runs will use production data where possible.
 - No integration with Reallocations system in the staging environment
 - UFE data for 5-minute and transition weeks will be artificially generated via a random generator.
 - Participants will be subscribed by default to the legacy versions of Settlements and Billing data model files.
 - Participants must use the data interchange portal in the staging environment to subscribe to the updated data model files
- The functions being made available are:
 - Prelim, Final, and Revision Settlements
 - Invoicing (Tax Invoice, RCTI, Adjustment Note, etc)
 - Reconciliation reports (SR, SS, etc)
 - Data Interchange
 - Settlements Direct (Production version, no API's)

Staging Environment Update

- The initial focus will be 30 minute data generated in the new settlement solution:
 - Week 1: 16th March to 20th March – 30 minute Prelim 2019Wk24
 - Week 2: 23rd March to 27th March – 30 minute Finals 2019Wk25 and 2019Wk24
 - Week 3: 30th March to 3rd April – 30 minute Revision 1 2019Wk25
 - Week 4: 6th April to 10th April – 30 minute Revision 2 2019WK16
- A review will then be undertaken with participants for a period:
 - Weeks 5-11: 13th April to 29th May – 30-minute Settlements review and retrospective, participant engagement, Q&A.
- To be followed by an example of a transition invoice
 - Week 12: 1st June to 5th June – 30-minute to 5-minute transition (Prelim) 2020Wk14
- Then examples of the 5 minute settlement data:
 - Week 13: 8th June to 12th June – Full 5-minute week (Prelim) 2020Wk15
 - Week 14: 15nd June to 19th June – 30-minute to 5-minute transition week (Final) 2020Wk15
 - Week 15: 22nd June to 26th June – Full 5-minute week (Final) 2020Wk15
- A review will then be undertaken with participants and a plan for global settlement examples will be published:

Industry Testing Working Group update

Tui Grant

Industry testing working group - update

- Discussed bringing GS market test date forward. Consideration for the amount of data setup required by all parties if this date is brought forward does not provide as much benefit as leaving the testing in the currently scheduled date.
- There was a request to provide more detail on the scope of the planned releases than what was available in the test **strategy**. It was explained that the detail is driven by the RWG and the approach taken to updating market data. Now that this is more defined, test **plans** can be developed with a more detailed scope and approach to testing outcomes.
- Walk through of the schema changes and discussion on if/when this would be tested with the market and under which program.
- Discussion on performance testing to be performed by AEMO for ehub.

Readiness Working Group update

Greg Minney

Readiness papers - timelines

Release of 2nd
contingency plan
draft to provide RWG
the opportunity to
comment on new
material

Readiness paper	RWG/ITWG/FG engagement	Draft paper	Consultation	Comments due	Final paper
Industry readiness contingency plan	Nov-19	20-Dec	6 weeks	31-Jan-20	6-Mar-20
MSP accreditation update plan	Oct-19	29-Nov	11 weeks	31-Jan-20	21-Feb-20
Bidding and dispatch transition plan	Jun-20	10-Jul	3 weeks	31-Jul-20	28-Aug-20

Workstream engagement

- Contingency Planning
 - Draft released 6th March
 - Feedback sought on approach to “Critical mass”
 - Supports key industry readiness criteria
 - Contingency approaches have been aligned with identified Industry Risks
- Readiness Reporting
 - Initial Report produced – 26 respondents for 55 participant
 - Representation from all participant types
 - Majority of respondents indicating on track, performing design
 - Copy of report will be available on AEMO website – details discussed with RWG on 12th March

Workstream engagement

Metering Transition Plan

- Activities reported generally as on track
- Transition Focus Group to progress timing, approach to key activities
- Agreement between impacted participants required for the smooth transition of physical metering and meter data
 - Consequential impact on individual participants work programs
- Upcoming activity to support industry rollout planning based on MDP work programs

Metering Accreditation Update Plan

- Accreditation update plan finalised Feb 21
- MP/ MDPs establishing scope and timing of change and the likely accreditation update requirements

5MS/GS Procedures update

Simon Tu

Metering procedures update


Electricity Retail Consultative Forum

- Meets every two months
- Next meeting: Thu 12 March
- 5MS/GS ICFs:
 - RWD[?]
 - N flag
 - Impact of theft on UFE
 - Update on MSATS standing data review
- <https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Electricity-Retail-Consultative-Forum>

B2B Working Group

- Meets monthly (IEC meets quarterly)
- Met on Tue 11 February. Next meeting Wed/Thu 18/19 March.
- Will consider draft responses to release v3.4 of B2B procedures consultation:
 - MDFF file size 10MB
 - MDFF 1,000 transaction limit in file
 - non-contestable unmetered loads – use of existing B2B transactions for this family of NMI
- <https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/B2B-Working-Group>

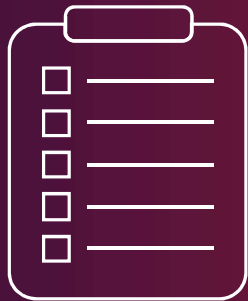
5MS/GS-related procedure change log

Procedure issue	Status
MDFF file size and transaction limit in file	<p>Initial feedback to first stage B2B procedures consultation showed majority support for:</p> <ul style="list-style-type: none"> • 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 <p>Consultation period for responding to draft procedures closes Wed 11 March</p>
Proposed procedural change to MDFF quality flag (N flag)	AEMO has submitted an ICF for ERCF consideration at March meeting (Thu 12 March)
Proposal for RWD[?]	Meter read type code is under consultation as part of the MSATS standing data review, as per ICF request. Consultation on issues paper closes Tue 31 March.
Removal of end user details from inventory table	AEMO has further questions and will be engaging with the tier 1 retailers on these.
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 receive TNI2.</p> <p>TNI 2 is under consultation as part of the MSATS standing data review, as per AEMO request. Consultation on issues paper closes Tue 31 March.</p>
 New: Obligation for MC to provide updated or substitution data in the cases of theft or fraud	ICF lodged by AGL to ERCF for consideration at next meeting. Relates to UFE calculation.

Forward meeting plan

Graeme Windley

Survey Time!



- Stakeholder Engagement Survey for Q1 2020 will be issued 30 March for response by 10 April.
- Survey will be issued through SurveyMonkey
 - Please whitelist their domains and IP addresses
https://help.surveymonkey.com/articles/en_US/kb/What-are-the-IP-addresses-to-your-website-for-our-firewall-configurations
- Changes we have made since the last survey:
 - Reorganised the SWG agenda
 - Refreshed the Industry Action Log and put in place internal processes to manage actions
 - Implemented monthly Open Q&A sessions
 - Reviewed website content to provide more background information – rolling out over March to mid-April 2020

Upcoming meetings

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

Current as at 4/03/2020

MARCH						
Su	Mo	Tu	We	Th	Fr	Sa
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	9	10	11

APRIL						
Su	Mo	Tu	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
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

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	26	27	28	29	30	
31	1	2	3	4	5	

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
National Public Holiday
State Public Holiday*

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

Proposed upcoming SWG meeting content

Date	Meeting	Proposed content
Wed 22 April 2020	SWG #21	<ul style="list-style-type: none">• Topics tba
Wed 20 May 2020	SWG #22	<ul style="list-style-type: none">• Topics tba

Retail stream update

Jim Agelopoulos

Systems Workstream - Metering

Current as at 10 Mar 2020

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING									
	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	SMS Staging	Preprod	Production
METERING										
PACKAGE 1 - Metering Data & Metrology										
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
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	22-Oct-20	01-Feb-21
PACKAGE 3 – Miscellaneous										
B2M via API • MSATS Technical Specification	Oct-18	-	Apr-19	9-May-19	31-May-19	30-Sep-19	31-Jul-20 (TBC)	N/A	22-Oct-20 (TBC)	07-Dec-20 (TBC)
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	22-Oct-20	07-Dec-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	22-Oct-20	07-Dec-20

1. Pre-Production date(s) aligned with "L2-M12 Industry test preparation completed by AEMO for MDM and B2M Go-Live" milestone tracked via Readiness Stream.
Note: Discussions ongoing as to whether this is brought forward to align with Customer Switching MSATS PrePod release in Q3 (TBC)

2. Production date(s) aligned with "L1-19 AEMO Metering Solution - Go-Live" milestone tracked via Readiness Stream.

Note: Discussions ongoing as to whether this is brought forward to align with Customer Switching MSATS PrePod release in Q4 (TBC)

MSATS Standing Data Review (MSDR) impact to 5MS & GS

Paul Lyttle

MSATS Standing Data Review (MSDR) Consultation

- The MSATS Standing Data Review (MSDR) consultation began on the 24th February 2020 and completes on the 3rd July 2020
- MSATS Standing Data Review (MSDR) will update standing data in MSATS to more accurately reflect the needs of the current market
- As part of the MSDR consultation, AEMO expects that:
 - Across the x5 CATS Master tables, a range of CATS fields will be removed, added, repurposed and clarified
 - B2M aseXML schema will be updated
 - Procedures to be updated include CATS and WIGS Procedures.
 - The Standing Data for MSATS guideline will be updated
 - CATS screens will be updated
- The MSDR consultation includes updating AEMO Procedures with 5MS programme items such as the introduction of 'TNI2' and updating ReadTypeCode to reflect interval length. e.g. RWDA, RWDB, etc..
- AEMO anticipate MSDR implementation over three stages. The 5MS/GS Programme items are included in the first stage with updated Procedures effective dated the 1st July, 2021. Other MSDR stages will be implemented after Global Settlement Go-Live (6/2/22)

Rejection of Metering data sent by a MDP not in the MDP role

Simon Tu

Rejection of Metering data sent by a MDP not in the MDP role

- **Situation:**

- From the implementation of AEMOs new MDM, AEMO will accept B2M MTRDs for NEM settlements
- The 5MS Program has defined validation rules to be applied in the ingestion of B2M MTRDs
- AEMO has previously proposed accepting MTRD MeteringDataNotifications where the transaction is sent by an MDP not yet current in the MDP role.
- The scenario is specific to meter churn

- **Complication:**

- The 5MS Program has identified that accepting MTRD MeteringDataNotifications where the transaction is sent by an MDP not yet current in the MDP role impacts the ability to unambiguously identify which meter reads are to be used in Settlement calculations.
- This will compromise Market Reconciliation.

- **Answer:** AEMO intend to now *reject* MTRD MeteringDataNotifications where the transaction is sent by an MDP not yet current in the MDP role.

Rejection of Metering data sent by a MDP not in the MDP role

- AEMO currently rejects MDMT MeteringDataNotifications where the transaction is sent by an MDP not yet current in the MDP role.
 - MeterDataResponse rejected with the error "1087 The MDP Relationship is not valid for this read date."
 - RM11 Missing Data report highlights to MDPs what data needs to be resent
 - MDP resends MDMT MeteringDataNotifications to AEMO once the CR1500 completes
- AEMO will reject MTRD MeteringDataNotifications where the transaction is sent by an MDP not yet current in the MDP role in line with the Metering Data Provider Service Level Procedure.
 - MTRD TACK rejected with the error "1087 The MDP Relationship is not valid for this read date."
 - RM11 Missing Data report identifies missing data
 - MDP resends MTRD MeteringDataNotifications to AEMO *and all other responsible Participants* once the CR1500 completes

MTRD Participant Role Element

Simon Tu

MTRD ParticipantRole Element

- The B2B Procedure: Meter Data Process defines ParticipantRole for a MeterDataNotification as "Recipient's Role as published in MSATS."
- Within B2B this value is used to clarify what presumed role the recipient holds for the connection point.
 - ParticipantRole is mandatory from a B2B procedures perspective
 - ParticipantRole is not aseXML schema mandatory
 - ParticipantRole does not have enumerated values
- For the purpose of a Market Settlements:
 - AEMO's MDM won't make use of this B2B value.
 - AEMO will not validate it i.e. AEMO shall ignore it
 - AEMO will not store it
- The value **NEMM** should be used

```

</CSVIntervalData>
    <ParticipantRole>
        <Role>NEMM</Role>
    </ParticipantRole>
</MeterDataNotification>
</Transaction>
    
```

Table 9 MeterDataNotification Data

Field	Format	Use	Definition
<i>RecipientRole</i>	VarChar(4)	M	The Recipient's Role as published in MSATS.
<i>RequestID</i>	VarChar(15)	M/N	The RequestID provided in the initiating Request. Not required when transaction sent as part of the normal Meter Data Notification Process. Mandatory when the transaction is sent to the requesting Initiator as a response to a ProvideMeterDataRequest , VerifyMeterDataRequest or RemoteServiceRequest .
<i>CSVConsumptionData</i>	CSVDATA	R	Contains embedded data in CSV format for Accumulation Meters. This is the standard file format for <i>accumulated metering data</i> -defined in a valid MDFF. Refer to 2.5.2a for details of the usage of this field.
<i>CSVIntervalData</i>	CSVDATA	R	Contains embedded data in CSV format for Interval Meters. This is the standard file format for <i>interval metering data</i> -defined in a valid MDFF. Refer to 2.5.2 a for details of the usage of this field.

Participant Id update for GS

Paul Lyttle

Objectives

To support the Global Settlement (GS) changes all Distribution Network Connection Points* will have their Local Retailer (LR) participant id updated to "GLOPOOL".

Since the LR will not be responsible for all energy entering or leaving the Local Area the Financial Responsible Market Participant (FRMP) will be updated on the following connection points:

TNI Connection Points

Cross Boundary Connection Points

* Transmission Network Connection Points (including Bulk Supply Points) will retain the 'POOL%' id in the LR role

* Embedded Network Child Connection Points will retain the Embedded Network Parent FRMP id in the LR role

Update of Participant Ids within all Distribution Networks

It is AEMO's intention to bulk update the LR Participant Id on all Distribution connection points in MSATS Production to support the GS cutover.

It is AEMO's intention to bulk update FRMP Participant Id on impacted Distribution connection points to support the GS cutover, changes include:

- FRMP participant id on Bulk Supply Points (TNIs) to 'GLOPOOL'
- FRMP participant id on Cross Boundary connection points to 'GLOPOOL'

Impacts:

- Due to the number of changes, **NO** notifications* will be provided to market participants for the bulk role changes
- It will be the **Participants' responsibility** to update their systems to reflect the LR participant id change

* A reconciliation file will be provided to FRMPs via email.

* No reconciliation files will be provided for other market participants.

Reconciliation of LR Participant Id change

As a financially responsibility market participant will no longer be in the LR role, a reconciliation file will be provided to the FRMP at the connection point on the completion of the Bulk update.

- AEMO will provide the reconciliation file(s) at the completion of all Bulk updates.

MAINTUPDT	CR_CREATEDT	CRCOD	NMI	CS	ACD	CRSTATAI	PARTICIPANT	ROLEI	ROLE_ST	ROLE_EN	MAINTACTF	MAINTCREATEDT	MAINTUPDT
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586005787	1	22/05/2019	COM	SELWYN	LR	28/06/2013	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586005787	1	22/05/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586007544	5	3/07/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586007544	5	3/07/2019	COM	SELWYN	LR	10/09/2013	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586008080	2	11/07/2019	COM	SELWYN	LR	4/12/2014	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586008080	2	11/07/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586008369	5	1/08/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586008369	5	1/08/2019	COM	SELWYN	LR	4/04/2008	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586008524	6	18/06/2019	COM	SELWYN	LR	12/07/2011	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586008524	6	18/06/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586009077	5	30/07/2019	COM	SELWYN	LR	31/10/2007	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586009077	5	30/07/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586011654	7	23/05/2019	COM	SELWYN	LR	26/11/2007	6/02/2022	A	6/02/2022 10:22:52 AM	31/12/9999
BCT10001709	6/02/2022 10:22:52 AM	BC08	2586011654	7	23/05/2019	COM	GLOPOOL	LR	6/02/2022	31/12/9999	A	6/02/2022 10:22:52 AM	31/12/9999

Draft example of FRMP reconciliation file for LR participant id changes

*A reconciliation file will only be provided to FRMPs via email.

Participant Id Change – Schedule

Draft schedule for BCT Participant id changes

Mar - Apr
2020

- Present change proposal

Jun - Jul
2020

- Accept proposal comments from participants
- Finalise change process

Dec
2020

- AEMO MDM Go Live

Feb - Apr
2021

- AEMO determine Bulk data extraction process
- AEMO test Bulk data extraction, process, reconciliation and refine times

Jul
2021

- 5MS Go Live

Feb 2022

- Global Settlements Go Live
- Run Bulk update LR and FRMP participant ids – **effective 6th February 2022**
- Generate Reconciliation files for FRMP participants

Dispatch stream update

Ian Devaney

Systems Workstream – Dispatch & Operations

10:40 -10:45

Current as at 10 March 2020

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING									
	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	SMS 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
PACKAGE 3 - Dispatch, Pre-dispatch and PASA										
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
PACKAGE 4 - Pricing and Miscellaneous										
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

Settlements stream update

Mark Hillaby

Systems Workstream - Settlements

Current as at 10 Feb 2020

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING									
	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	SMS Staging	Preprod	Production
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
PACKAGE 3 - Prudentials 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	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									

5MS Inbox Feedback

Pierre Fromager

5MS Inbox Feedback - 1 of 2

- Reallocations
 - The Reallocations regional calendar was offered in Staging but not in Pre-prod. For integration with Settlements, the Settlements changes need to be in place as well for the calendar to be used.
 - There was confusion about whitelisting – it is only required in Staging, not Pre-prod or Prod.
- Dispatch
 - Remember that the late rebidding period is changing from 15 mn before a 30mn trading interval to 30 mn before a 5 mn trading interval.

5MS Inbox Feedback - 2 of 2

- General
 - We are drafting a list of tables in the Data Model which are affected by 5MS/GS, even though they are not changing in any other way.
 - For example, going from 48 x 30 mn per day to 288 x 5 mn per day. Currently, participants are attempting to guess which tables are in this list by incorrectly using the reference to 'period ID'.
 - We will share this with participant before the next SWG.
 - Changes to the AEMO public website, including visualisation of data are in planning phase.
 - Changes to data delivery (NEM reports – via the public website) will follow the Data Model changes.

Data model for Dispatch & Settlements Version 5.0

Sangeeta Pai

Data model for Dispatch

- DM v4.30 released in Preproduction on 26th Feb 2020
- AveragePrice30 table is removed from v4.30 release and added in the latest v5.0.0.1 release.
- Billing and Settlements data model changes will be added to v5.0.0.1 alter script.
- PeriodID column is removed from DISPATCHLOAD and DISPATCHREGIONSUM data model tables.
- BIDOFFERPERIOD :
 - DUID – change to VARCHAR2(20)
 - All fields in this table with datatype NUMBER(6) except RAMPUPRATE and RAMPDOWNRATE will be changed to NUMBER(8,3)
- MNSP BIDOFFERPERIOD:
 - LINKID – change to VARCHAR2(20)
 - All fields in this table with datatype NUMBER(6) except RAMPUPRATE will be changed to NUMBER(8,3)
- For below tables, Reference_ID column datatype is changed from VARCHAR2(140) to VARCHAR2(100)
 - BIDDAYOFFER
 - BIDOFFERFILETRK
 - MNSP_DAYOFFER

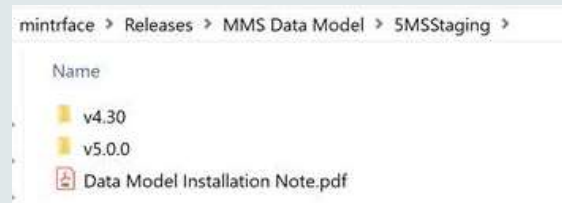
Data model for Dispatch

- To align the capability of Oracle installations with SQLServer the new fields BidOfferPeriod.OfferDateTime and MNSP_BidOfferPeriod.OfferDateTime are defined as data type 'TIMESTAMP(3)'
- For this to be effective we must also change the OfferDate fields from 'DATE' to 'TIMESTAMP(3)' 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.
- For participants using pdrLoader v7.4.1 or previous version and using **Oracle** Installation should add below statement in pdrLoader.properties

```
db_conn_init_sql=ALTER SESSION SET NLS_TIMESTAMP_FORMAT='YYYY/MM/DD  
HH24:MI:SS.FF3'
```

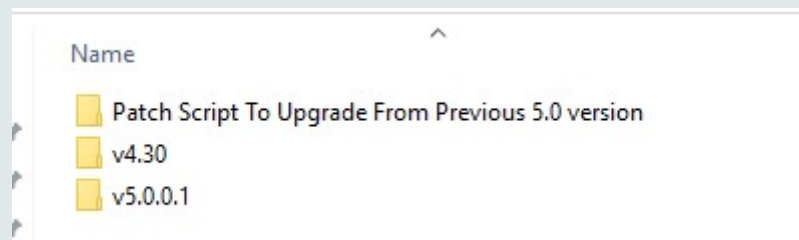
Data model incremental releases

Current Release:



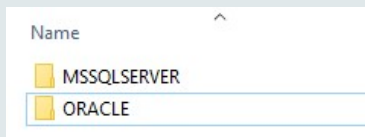
Incremental Releases:

- Participants currently on v5.0.0 and do not wish to reinstall the data model will have to manually run the patch script for every release from the "Patch Script To Upgrade From Previous 5.0 version" folder.
- v4.30 folder will be deleted from the Staging after this version is released in production.
- New Participants will have to then install release v4.30 from the Production Releases folder.

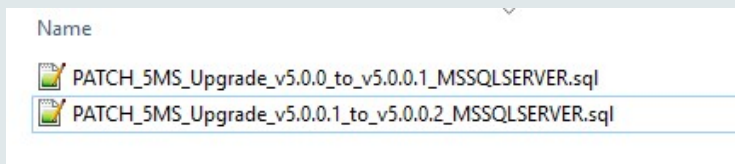


Data model incremental releases

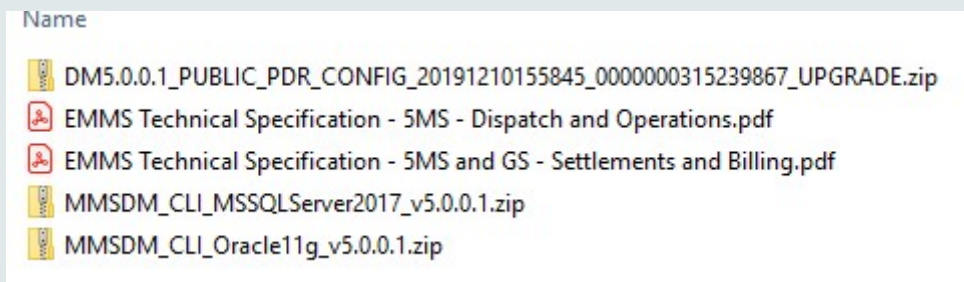
- The Patch folder will have 2 sub folders as below:



- Each sub folder will have the incremental patch scripts which participants will have to run manually on their staging database.



- The main latest folder version will be incremented with every release. Participants setting up their staging environment for the first time should use the release from this main folder.
- v5.0.1 release will include Dispatch and Bidding changes as well and Billing and Settlement changes.



Data Model Delivery Timing (date & timing presentation)

Ian Devaney

Data Model Delivery Timing (date & timing presentation)

Staging Releases

- November 1st 2019 version 4.30 Specifically for Reallocations, version 4.30 is the newest version of AEMO PDM. Current AEMO PDM is Version 4.29.
- November 29th 2019 version 5.0 specifically released for Bidding and Dispatch. This PDM is the foundation version we will release to Production on the 1st of April 2021.
- March 16th 2020 version 5.0.1, this release will add Pricing, Settlements_Data and Billing Run to the PDM 5.0.0.

Note the tech spec may change over time whilst we continue development and optimize the Data Model dependant applications.

Data Model Delivery Timing (date & timing presentation)

Pre-Production/Production Releases

- Version 4.30 for Reallocations, this will be the updated version of 4.29. (Pre-Production and Production)
- November 2020 version 5.0 will be released for Bidding, Dispatch, Pricing, Settlements_Data and Billing_Run. (Pre-Production and Production)
- *PDM Version 5.0 is the 5MS Data Model and replaces all previous data models once released into production.*

Data Model Delivery Timing (date & timing presentation)

Version	Staging	PREPROD	PROD	Changes
v4.30	01-Nov-2019	26-Feb-2020	01-Apr-2020	- 5MS- Reallocations
V5.0.0	29-Nov-2019	Nov 2020	01-Apr-2021	- 5MS- Bidding and Dispatch
	16-Mar-2020			- 5MS- Updated Dispatch changes - 5MS- Settlements and Billing

