



# 5MS Industry Testing Working Group #6

Wednesday, 27 May 2020 10:00 – 12:00AM (AEDT)

By Webex

# Agenda

No.	Time (AEDT)	Agenda item	Presenter
Preliminary matters			
1	10:00 – 10:10	Welcome	Tui Grant
2	10:10 – 10:15	Open Action Items	Tui Grant
3	10:15 – 10:45	5MS Staging Environment Update	Tui Grant
4	10:45 – 11:00	Impact of proposed Milestone Changes	Greg Minney
5	11:00 – 11:45	Proposed changes to Participant Testing	Tui Grant
6	11:45 – 11:50	Forward Meeting Plan	Tui Grant
7	11:50 – 12.00	General Questions	Tui Grant

# Open actions

Item	Action required	Responsible	Action update	By
2.6.1	AEMO to provide performance test strategy timelines in ITWG #3	AEMO	Timelines will not available until ITWG#4	25-Mar-2020
3.4.7	AEMO to provide the go-live date of Customer Switching project.	AEMO	Go-live date for Customer Switching project to be confirmed on 31-March-2020.	25-Mar-2020
4.4.1	AEMO to confirm the Industry Testing end date for Release 3.	AEMO	Based on the go live date the system is available for testing up until go live.	15-May-2020
4.4.2	AEMO to check if the Industry Testing start and end dates needs realignment with dates mentioned in other industry documents.	AEMO	It will be updated by the end of this month	31-May-2020
4.5.1	AEMO to review and confirm if the testing window for Release 4 is adequate.	AEMO	This pack allows options re testing if the date is moved	15-May-2020
4.10.1	AEMO to provide the updated dates for releasing IT test plans.	AEMO	Will be done by the end of May	31-May-2020

# 5MS Staging Environment Update

Tui Grant

# Dispatch – Functionality in Staging Release 2

Pricing DDL	APC Manager	Negative Residue Manager
<p>Trading Price Calculation on Trading Price base off the 5-min dispatch price and no longer referencing 30-min trading interval.</p> <p>NEM Trading Reports:</p> <ul style="list-style-type: none"> <li>TradingInterconnect</li> <li>TradingPrice</li> <li>TradingRegionSum (to be stopped as part of 5MS, however, this is pending ETA 31st of May)</li> <li>TradingLoad (to be stopped as part of 5MS, however, this is pending ETA 31st of May)</li> <li>Average30 (Pending, ETA 31st of May)</li> <li>Trading Price during price revision (Pending, ETA 31st of May)</li> </ul> <p>Rolling Sum Price From summation of 336 30-min intervals, it will now move to a summation of 2016 5-min intervals.</p> <p>Rolling Sum Price during price revision (Pending, ETA 31st of May)</p> <p>Market Suspension Pricing This is a pending release. (ETA 31st of May)</p>	<p>Monitors the Rolling Sum Price (RSP) against the Cumulative Price Threshold (CPT) by region and creates Administered Pricing events by region.</p> <p>Creates associated Market Notices records with event starts/ends and extensions</p> <p>The actual Market Notices are generated by the GeneralNotice Service.</p>	<p>No action required for Negative Residue Manager, this will remain the same.</p>

# Settlements - Staging Releases

- 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 Package 4: 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.

# Settlements - Next steps in 5MS Staging Environment

- 5-minute invoices is expected to commence in the first week of June
- Question: Are participants ready for AEMO to commence 5 minute invoicing?
- Options for Prudentials in Staging for discussion:
  - Each participant is currently allocated with 1 million dollars daily.
    - Should AEMO continue to load this?
    - Adjust to another amount?
    - Copy the amount processed in production for each participant.
- AEMO can support only one of the prudential options listed above.  
Which option would participants like to be implemented in Staging?

# Retail – Functionality in Staging Release 2

Due: 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

# Retail – Functionality in Staging Release 2

## Assumptions/Constraints

- B2B message exchange shall not be supported.
- Only message exchange for MTRD Meter Data Notification where the <To> Participant ID is 'NEMMCO' shall be supported.
- B2M CATS CR's shall not be supported.
- Standing Data shall be static and shall consist of a Production data snapshot.
- Connectivity is only via AEMO's MarketNet.
- The API-Pull protocol preference shall not be supported.
- Participants need to notify the AEMO 5MS project to update their protocol preference or preferred MDMT or MTRD schema version.

# Impact of Proposed Milestone Changes

Greg Minney

# Changes to be discussed

- PCF has requested advice from RWG on several changes to the 5MS Program timeline:
  - A. Changes to the Metering Solution Go-Live from 7-Dec-20 to 9-Mar-21
    - This is as a result of delays to the required internal systems build
  - B. Proposed changes to Settlements and Dispatch go-lives
    - Under consideration as a risk mitigation measure as a consequence of the Metering Solution go-live date change
  - C. Proposed 12-month deferral
    - The rule change request sent to AEMC by AEMO
    - Will be consulted on by AEMC before final determination
    - This proposal is not linked to changes A and B
- A and B will be discussed in the agenda item: *Impact of proposed milestone changes*
- C was discussed in the RWG for the purpose of providing input to participants rule change consultation responses

# 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

# B. Proposed Changes to Settlements and Dispatch

- AEMO proposes to change the systems deployment dates for Dispatch and Settlements solutions
- The proposal is triggered by the program decision to move the Retail solution Go-Live date out to 9 March 2021, not the potential of the 12-month industry go live deferral rule change to pass.
- The current approach has the Retail solution being deployed three weeks before the Settlements and Dispatch solution deployments on **1 April 2021**. It doesn't consider:
  - The risk of three significant cutovers all in a similar time.
  - The solution going first (Retail) carries the most technology risk with it.

# Proposed changes to Participant Testing

Tui Grant

# Market testing: definitions

Type of market testing	Description	Example
Market testing / participant testing	The generic term used to describe all three test types outlined below	
Industry testing	Self-testing of functionality such as connectivity, and/or coordinated multiparty testing of functional scenarios	Testing a change request (CR) or processing a reallocation
Invitation industry testing	Coordinated testing of business process scenarios with a select number or subset of participants with systems ready for testing.	Testing NMI transfer process or receipt of meter read files for settlements
Market trial	Coordinated multi-party end-to-end testing of business process scenarios.	Meter exchange involving CRs, services orders and 5-minute meter reads

# Proposed market testing approach (1/2)

Proposed go-live/ commencement of	Previous test approach	Proposed test approach	Comments
Dispatch and Bidding	Market trials: both 5-min and 30-min functionality	Industry Testing: 5-min functionality only	<ul style="list-style-type: none"> <li>Participants will be able to access, test and develop against the new 5MS functionality.</li> </ul>
Settlements	Market trials: both 5-min and 30-min functionality	Industry Testing: 30-min only	<ul style="list-style-type: none"> <li>AEMO will generate a full suite of invoices for 30 minute data</li> <li>Half will be produced using the existing MDM and the remainder using data from the new MDM.</li> <li>Updated Prudential data will also be made available to allow participants to fully test their solutions.</li> </ul>
MDM Platform	Market trials: both 5-min and 30-min functionality	Invitation industry Testing: 30-min only	<ul style="list-style-type: none"> <li>Co-ordinated testing with MDP's to validate MTRD and MDMT transactions.</li> <li>Available for all other participants to verify reports, API's and schema testing.</li> </ul>
5MS Commencement	Market trials: 5 minute capability across all streams	Market trials: 5 minute capability across all streams	<ul style="list-style-type: none"> <li>Co-ordinated testing of bidding, dispatch, settlements and metering with all participants who want to take part</li> <li>Consistent with current planned scope and timing of 5MS capability market trial</li> </ul>
GS Commencement	Market trials: GS with financial settlement	Market trials: GS with financial settlement	<ul style="list-style-type: none"> <li>Co-ordinated testing of settlements and metering with all participants who want to take part</li> <li>Scope and timing as for the current approach</li> </ul>

# Proposed market testing approach (2/2)

## Additional Participant Testing:

- Staging environment available for all streams
  - Contains 5MS capability, interfaces and allows for participant testing
    - Not fully integrated environment
- Bi-lateral Testing
  - Pre-prod environment remains available for participant testing including bi-lateral testing, this includes B2B testing for Metering Transactions.

# Impacts of proposed milestone changes

## DISCUSSION

1. **Proposed** test approaches in addressing changed confirmed deployments
  - MDM deployment on 09-Mar-21, with pre-prod release 01-Feb-21
2. **Proposed** test approaches if deployments are bought forward to a date earlier than the Retail go-live
  - Bidding deployment
  - Settlements deployment
3. What would participants like to see run/prepared in Pre Prod to support your industry testing efforts?

# Suggestions for Test Scope

Proposed go-live/ commencement of	Previous test approach	Proposed test approach	Comment
Dispatch and Bidding	Market trials: both 5-min and 30- min functionality	Industry Testing: 5-min functionality only	<ul style="list-style-type: none"> <li>Participants will be able to access, test and develop against the new 5MS functionality.</li> </ul>

## Suggested Scope

- Transition state available for half the period before transitioning to end state available

Settlements	Market trials: both 5-min and 30- min functionality	Industry test / Market trial: 30-min only	<ul style="list-style-type: none"> <li>AEMO will generate a full suite of invoices for 30 minute data</li> <li>Half will be produced using the existing MDM and the remainder using data from the new MDM.</li> <li>Updated Prudential data will also be made available to allow participants to fully test their solutions.</li> </ul>
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## Suggested Scope

- Integrated across reallocations, settlements and prudential
- Produce Invoices for 30 minute

# Suggestions for Test Scope

Proposed go-live/ commencement	Previous test approach	Proposed test approach	Comment
MDM Platform	Market trials: both 5-min and 30-min functionality	Invitation industry Testing: 30-min only	<ul style="list-style-type: none"> <li>• Co ordinated testing with MDP's to validate MTRD and MDMT transactions.</li> <li>• Available for all other participants to verify reports, API's and schema testing.</li> </ul>

Suggested Scope

- Prepare a settlement for 30 minute

# Forward meeting plan

Tui Grant

# Upcoming ITWG meetings: Proposed content

- Seeking feedback for proposed content/topic areas

Meeting Date	Meeting	Proposed Content
24-Jun-20	ITWG #7	<ul style="list-style-type: none"><li>• Update on AEMO 5MS Program milestones</li><li>• Review feedback of testing proposal</li><li>• Update on Staging</li></ul>
22-Jul-20	ITWG #8	<ul style="list-style-type: none"><li>• Review of invitation industry test scope</li><li>• Update on Staging</li></ul>

# Upcoming meetings

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

Current as 7 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

# General questions

Tui Grant