



# 5MS Industry Testing Working Group # 1

Thursday, 12 December 2019 11:00 – 14:00 (AEST)

AEMO Office: Level 22, 530 Collins St, Melbourne, VIC 3000

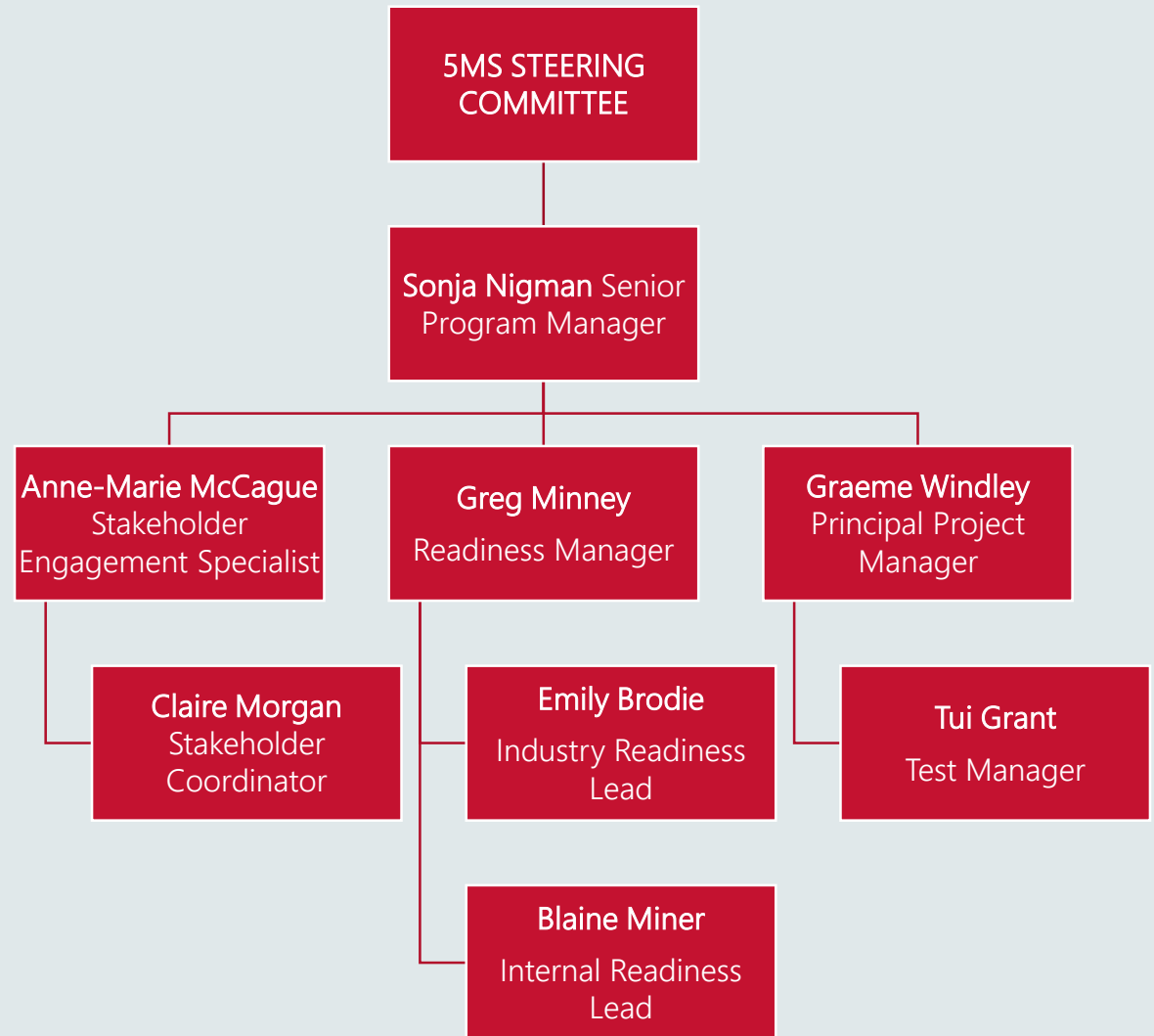
# Agenda

No.	Time (AEST)	Agenda item	Presenter
<b>Preliminary matters</b>			
1	11:00 – 11:10	Welcome	Tui Grant
2	11:10 – 11:20	Re-cap on 5MS and GS	Emily Brodie
3	11:20 – 11:30	Purpose, Expectations and Logistics	Tui Grant
<b>Matters for discussion</b>			
4	11:30 – 12:00	Industry Testing and Market Trials Strategy	Tui Grant
Lunch: 12:00 – 12:20			
5	12:20 – 13:10	Release 1: B2M APIs	Tui Grant
6	13:10 - 13.50	Release 2: Reallocations	Tui Grant
7	13:50 – 14:00	Forward Meeting Plan	Tui Grant

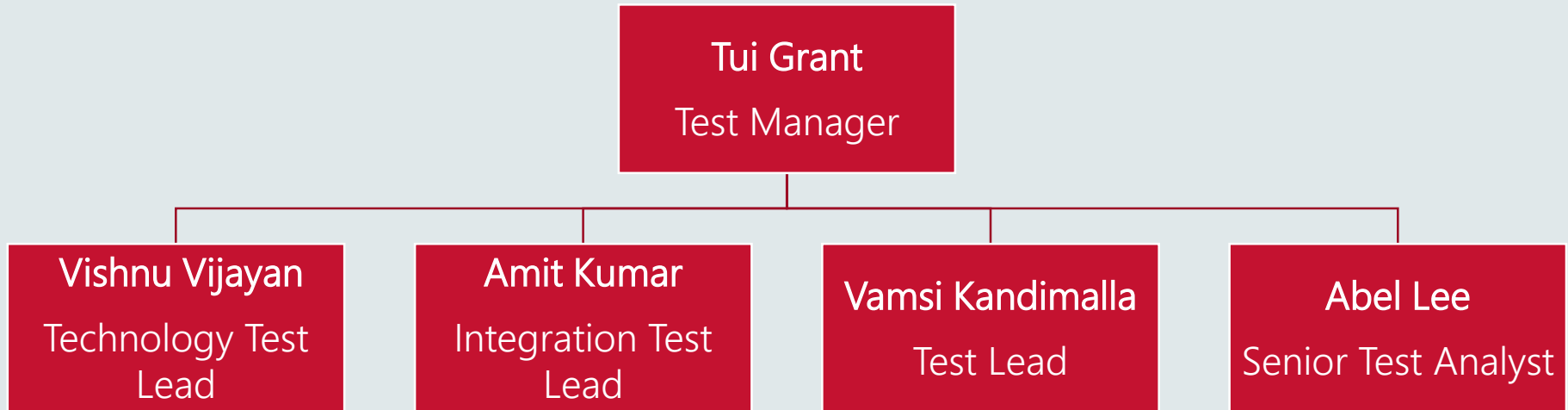
# Welcome

Tui Grant

# 5MS/GS Testing: Key AEMO contacts



# 5MS Test Team

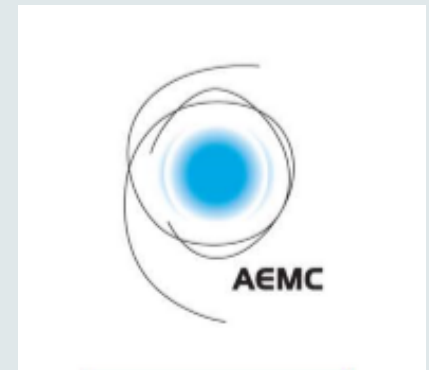


# Re-cap on 5MS and GS

Emily Brodie

# AEMC decision

- In November 2017, the AEMC made a final rule change altering the settlement period to 5 minutes, aligning with dispatch period
- The industry “go-live” is 1 July 2021
- Purpose of rule change is to:
  - remove the anomaly that exists between the 5 minute and 30 minute periods, which has been identified as a contributing factor to disorderly bidding
  - provide a clearer price signal for investment in fast response technology, including batteries and demand response
- Key areas affected:
  - Metering
  - Settlement calculation
  - Dispatch and market information



# What is required to implement 5MS?

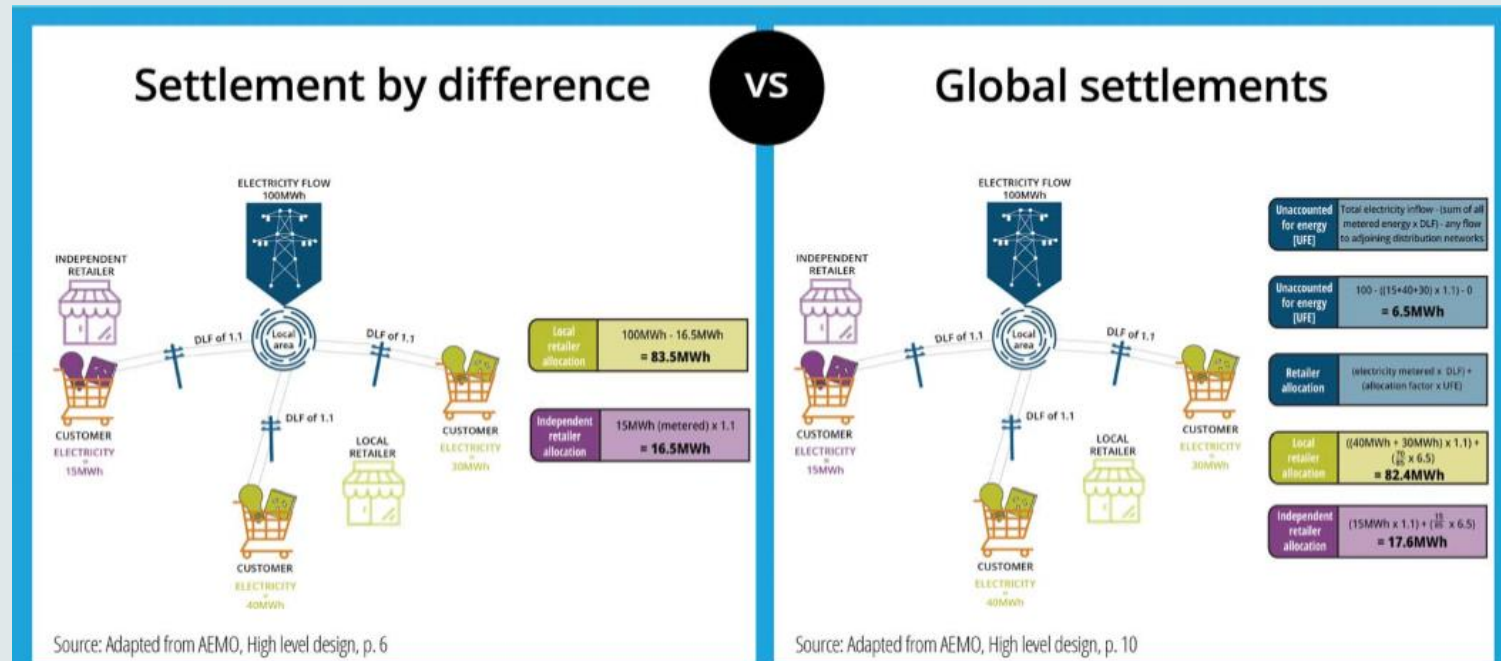
- From 1 July 2021, following processes need to change to a 5 minute basis:
  - Bidding and offering into the NEM
  - Settlement
  - Intervention pricing
  - Calculation of trading amounts and the cumulative price threshold
- This means that AEMO and market participants will need to:
  - upgrade **metering** to provide 5 minute data (where required)
  - upgrade **IT systems** to store and process 5 minute data
  - review/update existing **contract** terms and conditions
- AEMO also had to update its procedures by December 2019



# Global settlement recap

- On 6 December 2018, the AEMC finalised a rule to implement Global Settlement (GS)
- GS is an alternative methodology for settling electricity within a distribution area. It will replace settlement-by-difference. GS will:
  - remove any inequity between retailers
  - provide visibility of the unaccounted for energy (UFE) within distribution areas
- More information is provided in the Global Settlement fact sheet: [http://www.aemo.com.au/-/media/Files/Electricity/NEM/5MS/Program-Information/2018/5MS\\_What-is-global-settlement.pdf](http://www.aemo.com.au/-/media/Files/Electricity/NEM/5MS/Program-Information/2018/5MS_What-is-global-settlement.pdf)

# Settlements by Difference vs Global Settlements



# Key areas affected by global settlement

- GS is being implemented in parallel with 5MS
- Some market procedures – these have been consulted on as part of the metering and settlements packages
- AEMO and participants' IT systems – changes across both retail and wholesale systems
- Additional data:
  - NSPs/MDPs required to provide information on *non-contestable unmetered loads*
  - MDPs required to provide metering data for all connection points
- AEMO will begin publishing UFE from 1 July 2021:
  - no financial impact to retailers from UFE allocation from 1 July 2021 to 5 February 2022
  - UFE allocation will be financial from 6 February 2022

# 5MS/GS implementation timeline

**1 Dec 2019**

AEMO  
procedures  
updated for both  
5MS and GS

**1 Jul 2021**

5MS begins  
AEMO starts  
publishing UFE  
data ('soft start')

**6 Feb 2022**

GS begins

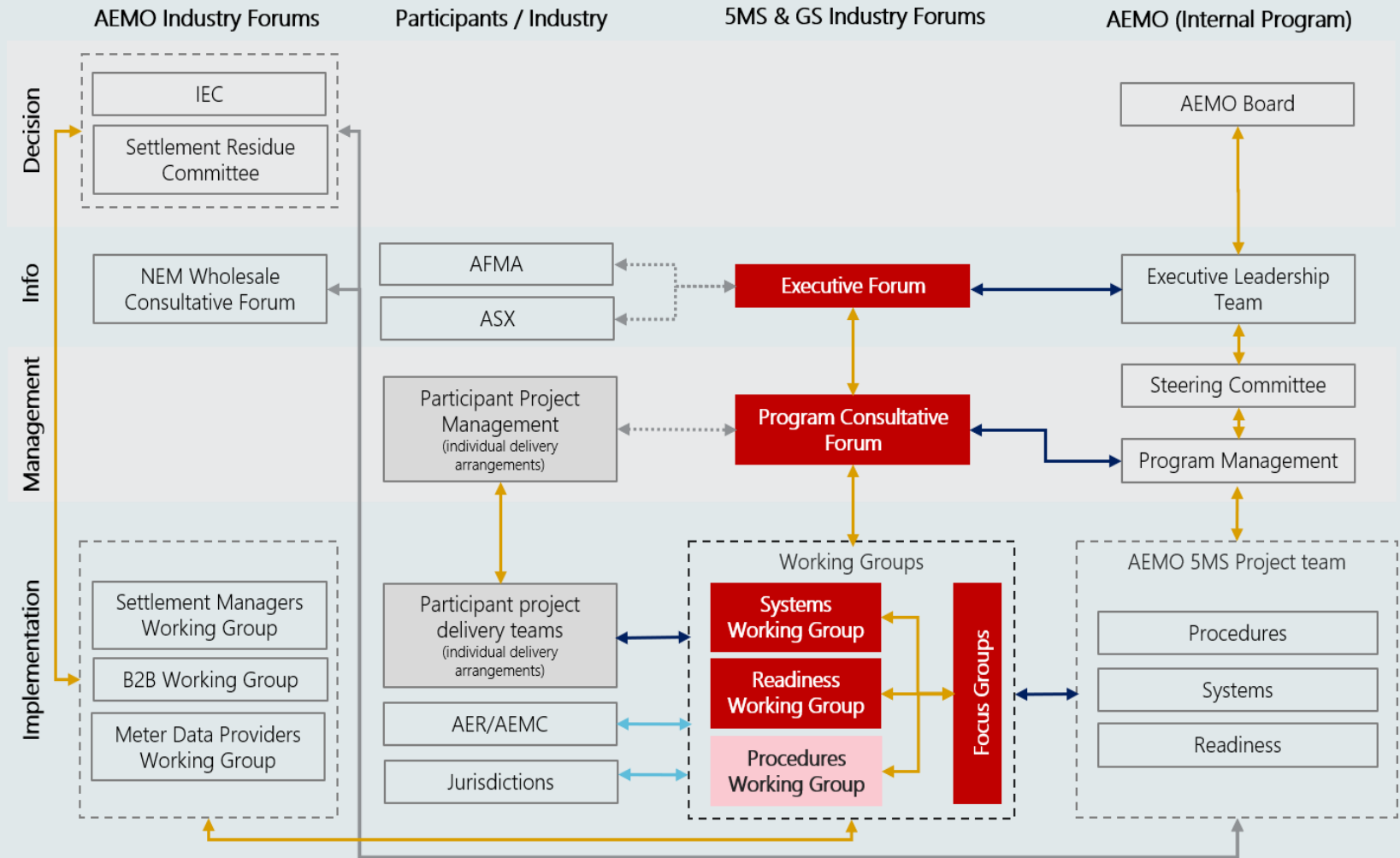
**1 Mar 2022**

AEMO's first  
annual report  
on UFE trends

# Purpose, Expectations and Logistics

Tui Grant

# Context



- Collaborative development
- Recommendation and escalation
- Information & Reporting
- Collaborative information sharing
- Updates as required – outcomes of external processes

# Purpose and objectives

- ITWG is for AEMO and industry stakeholders to engage in detail 5MS and GS testing matters.
- ITWG is a working group that:
  - contributes to the 5MS/GS Readiness Workstream
  - reports to the Readiness Working Group (RWG).
- Through the ITWG, AEMO will engage with the industry to:
  - Develop the approach and scope of each of the releases associated with the 5MS program
  - Understand, and where reasonable accommodate, key industry concerns relating to testing activities
  - Collaborate on the development of the test plans for each release associated with the 5MS Program
  - Ensure that transitional considerations defined by the readiness working group are taken into consideration for any participant testing activities

# Scope

## The ITWG:

- Is responsible for engaging in the verification of new and changed solutions that AEMO is implementing
- Provides participants with information that may assist them with their internal programs
- Identifies and defines scenarios and activities for each release test plan, including data, participant pairing and outcome definition. This provides the opportunity to verify participants' internal solutions
- Identifies testing specific risks and issues, and escalate to the RWG or Systems Working Group (SWG) to manage as appropriate
- May also refer matters to other relevant experts and working groups across AEMO for their input and consideration.



# ITWG expectations

- Expected that the ITWG will meet monthly:
  - Proposing a 2 hour meeting, longer in the lead-up to market trials
  - Webex dial-in
  - On occasion, ITWG can choose to meet face-to-face or via VC at AEMO's offices where reasonable e.g. in the lead-up to market trials
- ITWG members are expected to:
  - Be prepared to participate in discussion and provide detailed responses to matters under discussion.
  - Have authority to consider focus group matters and provide official views and commitments on behalf of their business.
  - Provide focus group outcomes back into their business.
  - Have authority to provide commitment to undertake the activities agreed by the ITWG as in scope.
  - Understand testing practices and principles.
  - Have capacity to participate in focus groups to define scenarios for test plans.
- Escalation of any contentious matters will be via AEMO's program and the Executive Forum

# Considerations

- Participation in industry testing is not mandatory
  - Testing participation rates will be monitored through readiness reporting
- Outcomes are only as valuable as the honesty with which they are recorded
  - The industry has agreed to a Market Readiness principle of “open and honest readiness reporting”
- Be aware of participants’ capacity to provide test data for the industry to consume

# Proposed approach to developing and consulting on test plans

ITWG engagement

AEMO publishes draft paper

Participants comment and provide suggestions on draft paper to AEMO

AEMO publishes final paper after considering suggestions from participants

# Industry Testing and Market Trials Strategy

Tui Grant

# Overview

- The Industry Testing and Market Trials Strategy identified 6 test phases relating to system go-lives and rule commencements:
  1. B2M API's
  2. Reallocations
  3. MDM
  4. Settlements and Dispatch & Bidding
  5. 5 Minute Settlements
  6. Global Settlements

# Overview – strategy content

- One-stop shop for everything to do with 5MS/GS testing, including:
  - Environments
  - Objectives
  - Defect management
  - Testing tools
  - Execution approach
  - Data considerations
  - Test communications
- ITWG will develop the test plans indicated in the strategy, starting with B2M APIs in today's session.

# Deliverables

## MARKET READINESS STRATEGY

★ Currently under development OR with RWG for feedback. See next slide for timelines

### INDUSTRY READINESS REPORTING PLAN ★

Readiness assessment questionnaires

Market readiness reports

### INDUSTRY TESTING & MARKET TRIALS STRATEGY

**TEST PLANS**

- B2M APIs ★
- MDM platform
- Bidding & settlements
- 5MS & UFE
- GS

### INDUSTRY TRANSITION & GO-LIVE STRATEGY

**TRANSITION PLANS**

- Metering ★
- Dispatch

**GO-LIVE PLANS**

- Reallocations ★
- B2M APIs ★
- MDM
- Bidding & settlements
- 5MS & UFE
- GS

**CONTINGENCY PLAN** ★

### MSP ACCREDITATION UPDATE PLAN ★

# Readiness papers - timelines

Item	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
<b>B2M API – Test plan</b> (invitation only)	Dec-19	31-Dec-19	2 weeks	13-Jan-20	20-Jan-20
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



# Developing the Industry test plans

Test plans	ITWG Engagement	Draft Plan	Consultation	Comments due	Finalised Plan
<b>MSATS B2M APIs</b> ★	Dec 2019	31 Dec 19	2 weeks	13 Jan 20	20 Jan 20
<b>MSATS – MDM Platform</b>	Jun 2020	Jul 2020	Jul 2020		Aug 2020
<b>Settlements and dispatch and bidding</b>	Oct 2020	Nov 2020	Nov 2020		Dec 2020
<b>Five-minute settlement</b>	Oct 2020	Nov 2020	Dec 2020		Jan 2021
<b>Global settlement</b>	Jun 2021	Jul 2021	Aug 2021		Aug 2021

# Release 1: B2M APIs

# Changes introduced in Release 1

- The introduction of API's is the major change from a participant perspective
- The ability to access MSATS via the market portal
- Updates to screen security to support the later release of the new MDM
- New screens for push/pull participant control of API/FTP functionality

# Release 2: Reallocations

# Changes introduced in Release 2

- The new screens allow for easier management of the reallocation functionality for the current 30 minute process.
- Reallocations entered after the 1 July 2021 will only be accepted in 5 minute format.
- New alert functionality offered to participants allows for notification of status changes for reallocations.

# Forward Meeting Plan

Tui Grant

# Forward Agenda

- Walk through of Release 1 Test Plan.
- Update on Release 1 SIT and UAT within AEMO.
- Update on Release 2 SIT and UAT within AEMO.
- Review any changes affect testing deliverables.

# How to engage with the 5MS Program

Email for questions or to be added to mailing lists: [5ms@aemo.com.au](mailto:5ms@aemo.com.au)

Website:

<https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement>

[Working Group calendar](#)



# Upcoming Meetings

<https://aemo.com.au/Electricity-National-Electricity-Market-NEM/Five-Minute-Settlement>

2019

## DECEMBER

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

2020

## JANUARY

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	31	1
2	3	4	5	6	7	8

## FEBRUARY

Su	Mo	Tu	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

## 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

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 29-11-2019

Thank you for your  
attendance and  
participation!



**AEMO**  
AUSTRALIAN ENERGY MARKET OPERATOR