

# 5MS & GS Readiness Working Group #9

Wednesday 11<sup>th</sup> March, 2020

## **AEMO Offices:**

Level 9, 99 Gawler Place, Adelaide

Level 10, 10 Eagle Street, Brisbane

Level 22, 530 Collins Street, Melbourne

Level 2, 20 Bond Street, Sydney

**PLEASE NOTE THIS MEETING WILL BE RECORDED FOR THE PURPOSE OF PREPARING MINUTES**

# Agenda

NO	TIME (AEDT)	AGENDA ITEM	RESPONSIBLE
<b>Preliminary matters</b>			
1	10:00am – 10:10am	Welcome, introduction and apologies	Greg Minney
2	10:10am – 10:15am	Notes, actions and feedback from previous meeting	Greg Minney
<b>Matters for noting</b>			
	10:15 – 10:25	Readiness milestones and MTP update	Greg Minney
	10:25 – 10:35	Industry testing update	Tui Grant
	10:35 – 10:40	Metering procedures update	Emily Brodie
	10:40 – 10:45	Industry readiness update	Emily Brodie
<b>Matters for discussion</b>			
	10:45 – 11:00	TFG debrief and forward view	Blaine Miner
	11:00 – 11:45	Industry readiness reporting: <ul style="list-style-type: none"> <li>Round #1 report</li> <li>Review point #1</li> </ul>	Austin Tan
	11:45 – 12:00	Contingency plan update	Emily Brodie
	12:00 – 12:10	Cutover approach for reallocations	Greg Minney
<b>Other business</b>			
	12:10 – 12:30	Forward meeting plan and general questions	Greg Minney

# Notes, actions and feedback from previous meeting

Greg Minney

# Responses to RWG meeting actions

#	Topic	Action	Response
8.4.1	Workstream update	AEMO to organise open forum for Staging Environment over WebEx in March	AEMO will arrange twice-weekly open forums from mid-March (settlements release into staging environment) until participants indicate there is no longer a need for these.
8.4.2	Metering Procedures	AEMO to provide additional details regarding the "Wash-up" consolidation of metering procedure changes	AEMO will run the wash-up consultation as a BAU process i.e. ERCF (and other relevant forums) will be informed and the usual NER requirements around notifying participants of the consultation process will apply.
8.5.1	Metering Transition Plan	AEMO to schedule the next Transition Focus Group	Complete
8.5.2	Metering Transition Plan	RWG to suggest agenda items for discussion at the TFG, including any queries relating to the Metering Transition Plan	Complete
8.9.1	Forward meeting plan and general questions	AEMO to consider creating a dedicated section in the RWG pack to facilitate the flow of information between TFG and RWG.	Complete – via milestone and MTP discussion  Also to be covered in detail at this RWG meeting #9 in the TFG debrief session.
8.9.2	Forward meeting plan and general questions	AEMO to propose a new risk to the Industry Risks and Issues Register regarding the uncertainty on how Metering Transition Plan activities will be implemented, in particular standing data updates.	Will be added and be considered at the next RWG risk/issues session in April

# Readiness milestones and MTP update

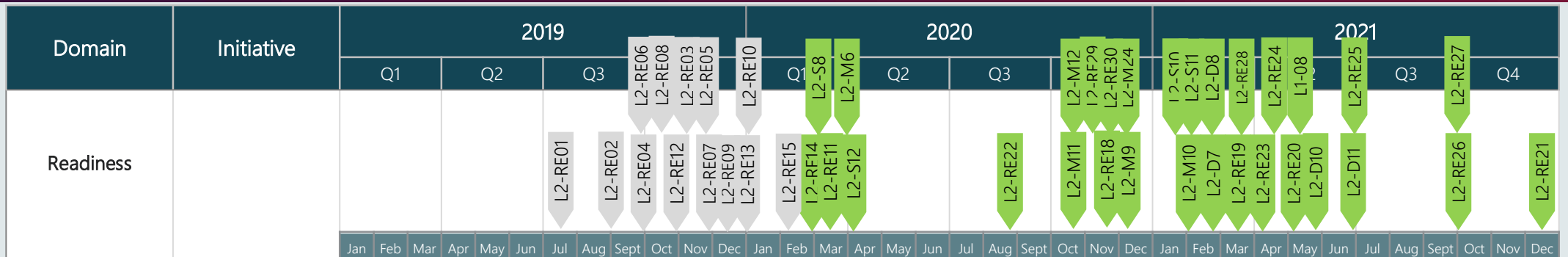
Greg Minney

Current as at 28-02-2020



# Level 2 Milestones – Readiness

Current as at 21-02-2020



## Key Milestones (Program)

ID	Milestone	Target Date	Expected Date	Owner	Status
L2-RE01	Industry Working Group Established	15-Jul-2019	15-Jul-2019	AEMO	Complete
L2-RE02	Market Readiness Strategy Industry Draft	30-Aug-2019	30-Aug-2019	AEMO	Complete
L2-RE03	Market Readiness Strategy Finalised	29-Nov-2019	30-Oct-2019	AEMO	Complete
L2-RE04	Industry Test Strategy Industry Draft Released	30-Sep-2019	30-Sep-2019	AEMO	Complete
L2-RE05	Industry Test Strategy Finalised	29-Nov-2019	29-Nov-2019	AEMO	Complete
L2-RE06	Transition and Go Live Strategy Industry Draft Released	30-Sep-2019	30-Sep-2019	AEMO	Complete
L2-RE07	Transition and Go Live Strategy Finalised	29-Nov-2019	29-Nov-2019	AEMO	Complete
L2-RE08	Market Trial Strategy Industry Draft	30-Sep-2019	30-Sep-2019	AEMO	Complete
L2-RE09	Market Trial Strategy Finalised	29-Nov-2020	29-Nov-2019	AEMO	Complete
L2-RE10	Metering Service Provider Accreditation Update Plan Industry Draft	29-Nov-2019	29-Nov-2019	AEMO	Complete
L2-RE12	Industry Readiness Reporting Plan Industry Draft	31-Oct-2019	31-Oct-2019	AEMO	Complete
L2-RE13	Industry Readiness Reporting Plan Finalised	13-Dec-2019	13-Dec-2019	AEMO	Complete
L2-RE15	Industry Transition Plan – Metering final complete	07-Feb-2020	07-Feb-2020	AEMO	Complete
L2-RE14	5MS / GS Industry Readiness Reporting Implemented	28-Feb-2020	28-Feb-2020	AEMO	Complete
L2-S8	Industry Test start for Reallocations	01-Mar-2020	26-Feb-2020	AEMO	Complete



# Level 2 Milestones – Readiness

Current as at 21-02-2020

Domain	Initiative	2019												2020												2021											
		Q1			Q2			Q3			Q4			Q1	Q2			Q3	L2-M12	L2-RE29	L2-RE30	L2-M24	Q1	L2-D8	Q2			Q3			Q4						
Readiness																																					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

## Key Milestones (Program)

ID	Milestone	Target Date	Expected Date	Owner	Status
L2-RE11	Metering Service Provider Accreditation Plan Finalised	13-Mar-2020	13-Mar-2020	AEMO	Complete
L2-S12	Reallocations Go-Live	01-Apr-2020	01-Apr-2020	AEMO	
L2-RE32	Industry Test for Reallocations Concludes	31-Mar-2020	31-Mar-2020	AEMO	
L2-RE22	Industry Transition Plan – Dispatch final complete	28-Aug-2020	28-Aug-2020	AEMO	
L2-M11	Market Trial preparation completed by participants for MDM and B2M Go-Live	22-Oct-2020	22-Oct-2020	Participants	
L2-M12	Market Trial preparation completed by AEMO for MDM and B2M Go-Live	22-Oct-2020	22-Oct-2020	AEMO	
L2-RE29	Retail MDM (incl. B2M) Market Trial Commences	22-Oct-2020	22-Oct-2020	AEMO	
L2-RE30	Retail MDM (incl. B2M) Market Trial Concludes	19-Nov-2020	19-Nov-2020	AEMO	
L2-RE18	Industry Go-Live Plan Retail MDM finalised	20-Nov-2020	20-Nov-2020	AEMO	
L2-M24	B2M Go-Live	17-Mar-2020	07-Dec-2020	AEMO	
L2-M10	New MDFF format accepted by AEMO	01-Feb-2021	01-Feb-2021	AEMO	
L2-D7	Dispatch Market Trial preparation completed by participants	17-Feb-2021	17-Feb-2021	Participants	
L2-D8	Dispatch Market preparation completed by AEMO	17-Feb-2021	17-Feb-2021	AEMO	

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



# Level 2 Milestones – Readiness

Current as at 21-02-2020

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

## Key Milestones (Program)

ID	Milestone	Target Date	Expected Date	Owner	Status
L2-S10	Settlements Market Trial preparation completed by participants	17-Feb-2021	17-Feb-2021	Participants	
L2-S11	Settlements Market Trial preparation completed by AEMO	17-Feb-2021	17-Feb-2021	AEMO	
L2-RE28	Dispatch and Settlements Market Trial concludes	15-Mar-2021	15-Mar-2021	AEMO	
L2-RE19	Industry Go-Live Plan Settlements, Dispatch & Bidding finalised	19-Mar-2021	19-Mar-2021	AEMO	
L2-RE23	5MS Capability Market Trial preparation completed by participants	06-Apr-2021	06-Apr-2021	Participants	
L2-RE24	5MS Capability Market Trial preparation completed by AEMO	06-Apr-2021	06-Apr-2021	AEMO	
L2-RE31	5MS Capability Market Trial commences	06-Apr-2021	06-Apr-2021	AEMO	
L2-RE20	Industry Go-Live Plan – 5MS Capability final complete	07-May-2021	07-May-2021	AEMO	
L2-D10	5MS Capability Market Trial concludes	31-May-2021	31-May-2021	AEMO	
L2-D11	30-min Bidding no longer accepted by AEMO	01-Jul-2021	01-Jul-2021	AEMO	
L2-RE25	MDMT format no longer accepted by AEMO for interval meters	01-Jul-2021	01-Jul-2021	AEMO	
L2-RE26	GS Market Trial preparation completed by participants	01-Oct-2021	01-Oct-2021	Participants	
L2-RE27	GS Market Trial preparation completed by AEMO	01-Oct-2021	01-Oct-2021	AEMO	
L2-RE21	Industry Go-Live Plan – GS Capability final complete	21-Dec-2021	21-Dec-2021	AEMO	

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

# Upcoming Milestones

Milestone	Date	Comments
Reallocations test period completion	31 Mar 2020	Industry test in Progress
Reallocations go-live	1 Apr 2020	On track
Staging release – Settlements, Full Data Model	16 March 2020	See Staging release discussion
Tech Spec Package 5 - Dispatch	16 March 2020	
Staging Release Package 4 - Dispatch	15-May 2020	

# Metering transition plan upcoming activities: Meter installation and reconfiguration

Sub-Category	Activities	Responsible	Transition end date
S01 Bulk/Wholesale meters	<ul style="list-style-type: none"> <li>Identify which meters need replacing or reconfiguring...</li> <li>Initial assessment of whether data storage exemptions may be required</li> </ul>	MP	31 Mar 2020
S02 Type 1-3			
S03 Subset of type 4	<ul style="list-style-type: none"> <li>Provide visibility of approach / timeframe for required meter replacement or reconfiguration [to AEMO]</li> </ul>	MC	31 Mar 2020
S04 Cross boundary (known)			
S05 Cross boundary (unknown)	<ul style="list-style-type: none"> <li>Identify which meters need to be installed, replaced or reconfigured</li> </ul>	MP	1 Jul 2020
	<ul style="list-style-type: none"> <li>Provide visibility of approach / timeframe for required meter replacement or reconfiguration [to AEMO]</li> </ul>	MC	31 Dec 2020

# Metering transition plan upcoming activities: Metering data delivery

Sub-Category	Activities	Responsible	Transition end date
S17 New and replacement type 4 S18 New and replacement type 4A S19 New and replacement VIC AMI meters S20 New and replacement SAMPLE meters S21 Pre-1 Dec 2018/19 Type 4, 4A, VICAMI and SAMPLE meters	Provide forward plan to AEMO and industry	MDP	1 Jul 2020

# Metering transition plan upcoming activities: MSP accreditation updates

Sub-Category	Activities	Responsible	Transition end date
MP/MDP accreditation (for 1 July 2021)	<ul style="list-style-type: none"> <li>Assess level of change required for people, process and systems to facilitate 5MS/GS implementation</li> </ul>	MP/MDP	28 Feb 2020
	<ul style="list-style-type: none"> <li>Confirm scope/scale of change with AEMO</li> </ul>		30 Jun 2020
	<ul style="list-style-type: none"> <li>If needed, apply for accreditation update</li> </ul>		In accordance with Roadmap agreed with AEMO
MP/MDP accreditation (for 1 Dec 2022)	<ul style="list-style-type: none"> <li>Assess level of change required for people, process and systems to facilitate 5MS/GS implementation</li> </ul>	MP/MDP	31 Mar 2020
	<ul style="list-style-type: none"> <li>Confirm scope/scale of change with AEMO</li> </ul>		30 Sep 2020
	<ul style="list-style-type: none"> <li>If needed, apply for accreditation update</li> </ul>		In accordance with Roadmap agreed with AEMO

# Industry testing update

Tui Grant

# Industry testing working group - update

- Presented the changes that would be delivered in release 3 to allow participants to begin planning on what effect these would have on their systems and the extent to which the industry would like to test prior to go live.
- There was discussion on the number of different forums and messaging regarding changes at each forum which varied slightly.
- Updated the participants with the program that would be live before us that would be updating the schema with both their changes and ours would be the customer switching project. ITWG was requested to keep participants up to date on this project and testing activities of the 5ms schema changes they would be making.
- Reviewed the GS timelines again and confirmed no objections to the current date.



# Test plans - timelines

Test plan	ITWG engagement	Draft paper	Consultation	Comments due	Final paper
B2M API (invitation only)	Dec-19	TBC	TBC	TBC	TBC
MDM platform (market trial)	Jun-20	Jul-20	Jul-20		Aug-20
Dispatch and settlement (market trial)	Oct-20	Nov-20	Nov-20		Dec-20
5MS capability and UFE (market trial)	Oct-20	Nov-20	Dec-20		Jan-21
GS capability (market trial)	Jun-21	Jul-21	Aug-21		Aug-21

	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21		Jun-21	Jul-21	Aug-21
B2M API (Invitation only)																		
MDM platform (market trial)																		
Dispatch and settlement (market trial)																		
5MS capability and UFE (market trial)																		
GS capability (market trial)																		

*NOTE: early feedback on documents is welcome*

Early RWG/ITWG/FG engagement
Draft published
Feedback on draft
Final published

# Staging environment update: Settlements

Settlements Package 2 is due to be deployed in the 5MS Staging Environment 16 March 2020.

- Initial deployment will be configured for 30-minute settlement only, with transition to 5-minute trading intervals and global settlement to follow.
- 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)
- Environment will initially use a data snapshot from the EMMS Production system, to be taken in early February 2020. Integration with the Dispatch and Reallocations staging environment will **not** initially be on offer.
- 5-minute metering and UFE data will be artificially created for the staging environment.

# Metering procedures update

Emily Brodie

# 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 NMIs
- <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"> <li>MDFF file size 10MB</li> <li>MDFF 1,000 transaction limit in file</li> <li>non-contestable unmetered loads – use of existing B2B transactions for this family of NMIs</li> </ul> <p>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 <b>receive</b> 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>
★ <b>New:</b> 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.

# Industry readiness update

Emily Brodie

# Readiness stakeholder engagement (1/2)

## Past events

- Transition focus group workshop
  - Fri 28 Feb 2020
  - AEMO offices and WebEx by request
  - Metering transition plan implementation
- Industry testing working group
  - ITWG #3 Wed 26 Feb 2020
    - WebEx
- 5MS Q&A
  - Thu 27 Feb 2020
  - WebEx
  - For anyone who had questions about any aspect of 5MS/GS

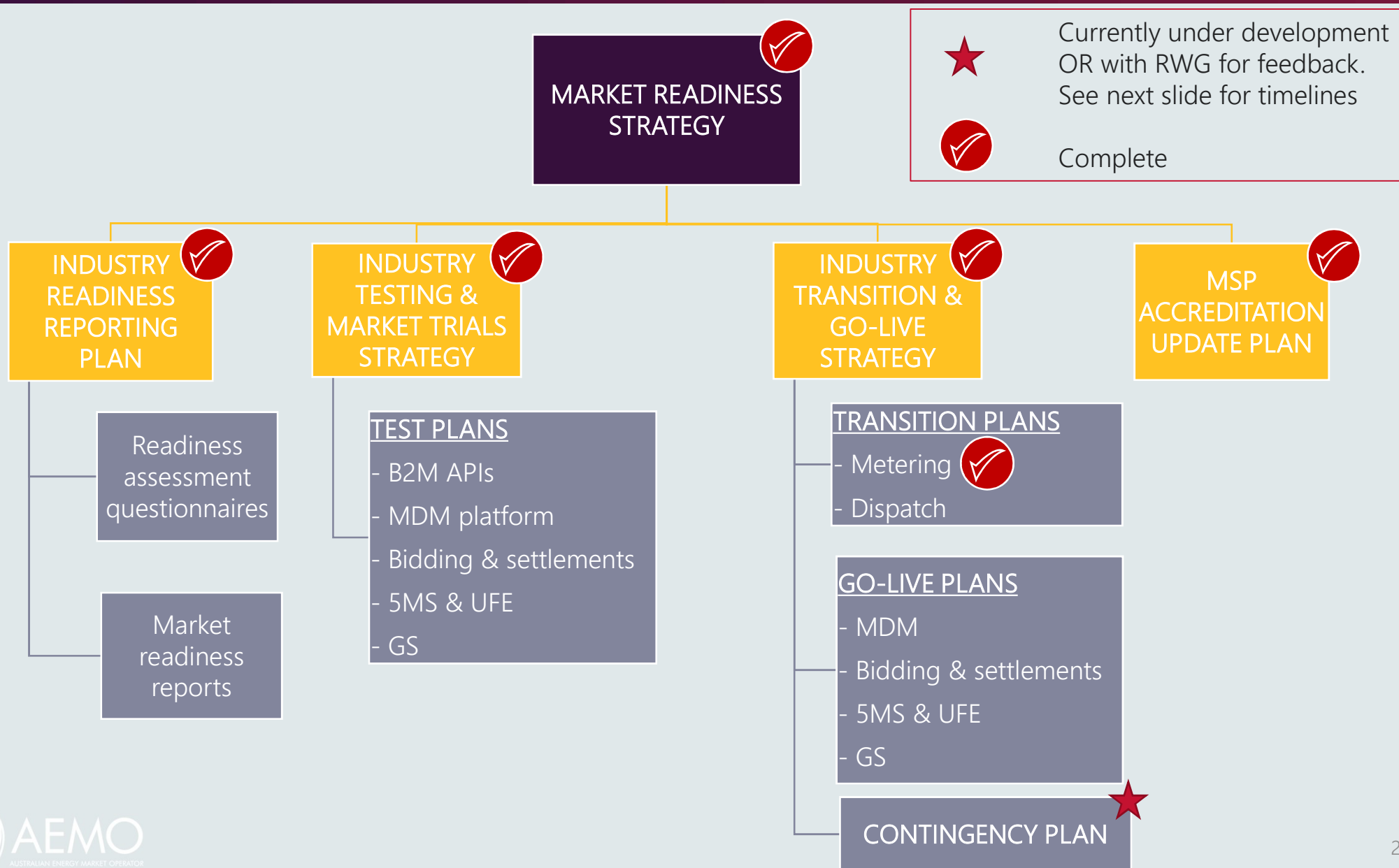


# Readiness stakeholder engagement (2/2)

## Upcoming events

- Staging environment open forums – if sufficient interest
  - twice-weekly open forums from mid-March (until participants indicate there is no longer a need)
  - WebEx
  - Specifically to assist with settlements release
  - For anyone who has questions about testing in the 5MS staging environment
- Transition focus group meetings
  - To be discussed at this RWG #9

# Readiness papers - status



# Readiness papers - timelines

Release of 2<sup>nd</sup> 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

	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	...	Jun-20	Jul-20	Aug-20
Market readiness strategy	30-Oct										
Industry test and market trial strategy	28-Oct	29-Nov									
Transition and go-live strategy	28-Oct	29-Nov									
Industry readiness contingency plan			20-Dec	31-Jan		6-Mar 20-Mar	3-Apr				
Metering transition plan		29-Nov	20-Dec		7-Feb						
Bidding and dispatch transition plan									20-Jun	10-Jul	31-Jul 28-Aug
Industry readiness reporting plan	31-Oct	21-Nov	13-Dec								
MSP accreditation update plan		29-Nov		31-Jan	21-Feb						

*NOTE: early feedback on documents is welcome*

Early RWG/ITWG/FG engagement
Draft published
Feedback on draft
Final published

# Maintaining readiness papers

- Making changes to:
  - Transition and go-live strategy
  - Industry test and market trial strategy
- To accommodate:
  - Milestone alignment
  - Global settlement market test timeframes
  - B2M API delivery change
- These will be tracked through the document control log (a new project management tool)

# Readiness reporting - timelines

Readiness reporting	Survey released	Survey responses due	Distribute results	Discuss at RWG	Discuss at PCF	Discuss at EF
Round #1	05-Feb-20	14-Feb-20	2-Mar-20	11-Mar-20	05-Mar-20	Proposed 12-Mar-20
Round #2	14-Apr-20	23-Apr-20	07-May-20	14-May-20	02-Jun-20	Proposed 11-Jun-20
Round #3	07-Jul-20	16-Jul-20	30-Jul-20	13-Aug-20	03-Sep-20	Proposed 07-Sep-20
Round #4	01-Sep-20	10-Sep-20	24-Sep-20	08-Oct-20	05-Nov-20	19-Nov-20
Round #5	03-Nov-20	12-Nov-20	26-Nov-20	09-Dec-20	tbc	tbc

	FEB			MAR		APR		MAY		JUN	JUL			AUG	SEP			OCT	NOV			DEC
Round #1	Wed 5 Feb	Fri 14 Feb	Fri 28 Feb	Thu 5 Mar	Wed 11 Mar																	
Round #2						Tue 14 Apr	Thu 23 Apr	Thu 7 May	Thu 14 May	Tue 2 Jun												
Round #3											Tue 7 Jun	Thu 16 Jun	Thu 30 Jul	Thu 13 Aug	Thu 3 Sep							
Round #4															Tue 1 Sep	Thu 10 Sep	Thu 24 Sep	Thu 8 Oct	Thu 5 Nov			
Round #5																			Tue 3 Nov	Thu 12 Nov	Thu 26 Nov	Thu 9 Dec

**Survey released**

**Responses due**

**Results distributed**

**Discuss at RWG**

**Discuss at PCF**

# Transition focus group debrief and forward view

Blaine Miner

# Transition focus group debrief

- Meeting held Friday 28 Feb 2020
- Focus areas:
  - Approaches regarding the execution of various MTP activities:
    - Agreements to allow 5-min data delivery prior to 1 July 2021
    - Transition to 5-min metering data delivery for Type 4/4A and VIC AMI
    - Non-contestable unmetered loads: MSATS standing data creation
    - Tier 1 basic meters: datastream creation and data delivery
    - Alignment of meter RegisterIDs and Suffixes in the MSATS CRI table for interval meters
    - Updating LR and FRMP fields to GLOPOOL for existing NMI
  - Updates to the MTP



# Execution of MTP activities

Topic	Discussion	Next Steps & Actions
Agreements to allow 5-min data delivery prior to 1 July 2021	<ul style="list-style-type: none"> <li>Some Participants already have aggregation agreements in place today which could be used as a template for 5-min related agreements.</li> <li>Participants should seek their own Legal advice regarding NER 7.10.5.</li> <li>The majority of Participants (Retailer / DNSP) indicated that they will not be seeking to receive 5-min metering data via B2B prior to 1 July 2021.</li> <li>AEMO and a portion of Participants (Retailer) reconfirmed that they will be seeking 5-min metering data prior to 1 July 2021.</li> <li>Agreements for B2B purposes are separate to those entered into for B2M purposes.</li> <li>LRs should seek their own Legal advice regarding any consequences associated to an agreement being entered into between the required Parties under NER 7.10.5. i.e. would MDPs still need to deliver 30-min metering data to the LR up until 1 July 2021 or would they only be required to deliver the agreed 5-min trading intervals.</li> <li>TFG attendees were comfortable with AEMO capturing when and which Participants intend delivering or receiving 5-min metering data prior to 1 July 2021</li> </ul>	<ul style="list-style-type: none"> <li>AEMO to include reference to type 7 metering in the 'context slide'</li> <li>Participants to seek Legal advice as required in relation to NER 7.10.5.</li> <li>Participants to engage other Participants early to discuss the potential delivery of 5-min metering data pre-1 July 2021.</li> <li>Participants to advise AEMO when they believe they will deliver or receive 5-min metering data,</li> </ul>

# Execution of MTP activities

Topic	Discussion	Next Steps & Actions
Transition to 5-min metering data delivery for Type 4/4A and VIC AMI	<ul style="list-style-type: none"> <li>• MDPs committed and on-track to deliver 'rollout' plans to AEMO and Industry by 1 July 2021</li> <li>• Most large MDPs expecting to start converting and delivering 5-min metering data for these metering types from late 2021 or early/mid 2022 (over 500k meters to be converted in Vic alone)</li> <li>• Only 'required meters' under the 5MS Rule expected to be converted i.e. no pre-1 Dec 2018 type 4 meters are expected to be converted</li> <li>• Retailers and distributors are concerned about CATS CR notification volumes</li> <li>• Discussion occurred re potential CR transactions e.g. CR3000, CR4000 and CR5000 series</li> <li>• CR volumes may also be impacted by ERCF proposals, e.g.:</li> <li>• 'Meter Read Type' field to communicate meter trading interval length (RWD5)</li> <li>• Application of ADLs at Register level</li> <li>• Each MDP Rollout plan is to include: transition window, volumes, ramp rates and overall approach e.g. jurisdictional, distribution area, Retailer.</li> <li>• Need to manage CRs to ensure critical notifications are not delayed e.g. associated to customer transfers</li> <li>• Participants happy and encouraged by the transparency the MDPs are demonstrating</li> </ul>	<ul style="list-style-type: none"> <li>• AEMO and TFG to monitor and consider implications of changes being discussed in the ERCF</li> </ul>

# Execution of MTP activities

Topic	Discussion	Next Steps
Non-contestable unmetered loads: MSATS standing data creation	<ul style="list-style-type: none"> <li>Discussed advantages and disadvantages of DBs applying a 1 step vs a 2 step process in creating NCUL NMIs                             <ul style="list-style-type: none"> <li>1 Step – Wait for new NMI Classification Code to be available and then create required NMIs</li> <li>2 Step – Create NMIs as per BAU NMI create processes and then update NCC when code becomes available</li> </ul> </li> <li>Participant raised that a 2 step process may introduce transfer risk i.e. if a NCUL NMI is created with an NCC of 'Small', they may be transferred to another Retailer in error</li> <li>AEMO suggested that having the transition start date, for the NCUL NCC, inline with AEMO's MDM Release date (Dec 2020), strikes the right balance between minimising DB disruption and mitigating other risks such as transfer risk and implementation risk</li> <li>Discussed the timing and approach for the associated datastream records</li> <li>'Active' Datastreams to be created with a prospective start date of 1 July 2021 or as 'Inactive' earlier with a status update to occur prior to 1 July 2021</li> <li>Datastreams and meters to be created in the CRI and CNDS tables in a similar manner to type 7 loads</li> </ul>	<ul style="list-style-type: none"> <li>AEMO to confirm number of prospective days a datastream can be created</li> </ul>

# Execution of MTP activities

Topic	Discussion	Next Steps
Tier 1 basic meters: datastream creation and data delivery	<ul style="list-style-type: none"> <li>QLD basic meter datastreams are already in MSATS and are Active</li> <li>NSW DB noted that they will active their datastreams from Mar/Apr this year</li> <li>Other MDPs looking to have datastreams created and activated by mid this year</li> <li>AEMO not aware of any additional support activities required of AEMO</li> <li>Updates to be managed through BAU CR transactions, potential notification management requirements still to be determined</li> </ul>	<ul style="list-style-type: none"> <li>Participants to determine if additional support is required from AEMO to complete these MTP activities</li> <li>Participants to determine if specific CR notification considerations should be applied to these updates</li> </ul>
Alignment of meter RegisterIDs and Suffixes in the MSATS CRI table for interval meters	<ul style="list-style-type: none"> <li>Not required by AEMO to support Settlement and Prudential activities</li> <li>Participant mentioned that the MSATS Standing Data Review may result in the Register ID being removed from the CRI table</li> <li>Until the requirement has been removed, we need to plan for an appropriate transition e.g. timing and preferred approach</li> <li>CR notification management needs to be a critical consideration</li> </ul>	<ul style="list-style-type: none"> <li>AEMO and Participants to monitor discussions at the ERCF and Standing Data Review which may impact TFG considerations</li> <li>Participants to raise items which needs to be considered for this MTP activity</li> </ul>

# Execution of MTP activities

Topic	Discussion	Next Steps
Updating LR and FRMP fields to GLOPOOL for existing NMI	<ul style="list-style-type: none"> <li>• Updates to be effective 6 Feb 2022 and run as part of GS go-live process</li> <li>• AEMO's proposed approach is for AEMO to perform the updates through a bulk update mechanism and suppress CR notifications.               <ul style="list-style-type: none"> <li>• Update logic to be provided to Participants</li> <li>• AEMO to confirm approach to in-flight CR's at time of cutover</li> <li>• Reconciliation file to be provided to FRMP                   <ul style="list-style-type: none"> <li>• AEMO to consider if other reconciliation files required</li> </ul> </li> <li>• Participant suggested that reconciliation file could contain only NMIs where the LR does not equal GLOPOOL e.g. embedded network NMIs to reduce file volumes</li> </ul> </li> <li>• Specific IT approach to be worked through with the SWG</li> <li>• AEMO confirmed that MSATS validations will be in place, from 6 Feb 2022, to ensure accurate LR and FRMP (e.g. for Bulk NMIs) maintenance from this date</li> </ul>	<ul style="list-style-type: none"> <li>• Participants to provide feedback regarding AEMO's proposal and engagement with the SWG</li> </ul>
Updates to the MTP	<ul style="list-style-type: none"> <li>• Missing content will be added to the Special Sites MTP activity (A31)</li> <li>• An additional activity will be added to the VIC TUoS sub-category (S39) to specify ongoing MDFF delivery to AEMO (status quo)</li> </ul>	<ul style="list-style-type: none"> <li>• AEMO to update Special Sites and VIC TUoS items in the MTP</li> <li>• AEMO to confirm metering data delivery requirements from the introduction of AEMO's MDFF capability</li> </ul>

# RWG Direction

## TFG meeting frequency

- AEMO recommends that the TFG meets:
  - Regularly (monthly) in the short-term, to discuss key MTP execution elements
  - At the request of the RWG

## Discussion:

- Any requests for the TFG?
- Any expectations of the TFG?
- Any immediate issues or concerns to be considered by the TFG?

# Industry readiness reporting: Round #1

Austin Tan



# Industry Readiness Report # 1 debrief

## - Agenda

- Background and survey response
- How to interpret results
- Results and high level commentary
- Discussion Points
  - Metering Transition Plan
  - Risks and issues
  - Other
  - Proposed revisions to Readiness Reporting Plan

# Industry Readiness Report 1 – Background and survey response

- Industry Readiness reporting tracks industry readiness for 5MS and GS commencements. The first readiness assessment questionnaire was distributed on 5 February, covering
  - Program establishment and overall progress
  - Progress against participant segment specific criteria
  - Progress against activities detailed in the Metering Transition Plan
- Strong survey response rate and segment coverage has provided reasonable assurance that the results are likely reflective of the overall industry position. A total of 26 organisations representing 55 participant types responded to this survey. Some follow up required to increase coverage in key participant areas.

	#Responses	% Industry coverage	Industry coverage methodology
Organisations	26	-	-
Total responses	55	-	-
Generator	8	<div><div></div></div> 80%	Generator respondents capacity / Total NEM capacity
Retailer	10	<div><div></div></div> 73%	Retailer respondents settlement vol. / 2019 NEM settlement vol.
MP	13	<div><div></div></div> 93%	MP respondents NMI's / Total NMI's
MDP	12	<div><div></div></div> 99%	MDP respondents NMI's / Total NMI's
DNBP	9	<div><div></div></div> 90%	Number of DNBP's survey respondents / Total DNBP's
TNSP	3	<div><div></div></div> 50%	Number of TNSP's survey respondents / Total TNSP's

Table 1: Readiness reporting round 1 respondents info and industry coverage

# How to interpret readiness reporting results



Criteria	Overview	Example questions	Response options	Results presentation	Legend
General Readiness Criteria	<ul style="list-style-type: none"> <li>Criteria related to the level of program establishment of participant programs.</li> </ul>	<ul style="list-style-type: none"> <li>For your organization's 5MS and GS program:                             <ol style="list-style-type: none"> <li>is project funding secured?</li> <li>Is the project plan established?</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>All Yes and No responses are presented in a pie chart.</li> <li>All responses are unweighted.</li> </ul>	
Specific Readiness Criteria	<ul style="list-style-type: none"> <li>Criteria that tracks the implementation of specific market commencement requirements for each participant type. Hence, each participant type will have their own set of specific readiness criteria (e.g. generators ability to submit 5 min bids by 1 July 2021, retailers ability to receive and reconcile 5 minute data).</li> </ul>	<ul style="list-style-type: none"> <li>What is your organization's progress and status towards the following readiness criteria?                             <ol style="list-style-type: none"> <li>Receive and reconcile 5 minute settlements data</li> <li>Receive and reconcile UFE allocations data (from 6 Feb 2022)</li> <li>Support 5-min reallocations (if relevant)</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Participants (including AEMO) are asked to report their status towards fulfilling these requirements by market commencement (on track, at risk or late), and also report on progress in 25% increments.</li> </ul>	<ul style="list-style-type: none"> <li>Participants status and progression towards specific criteria are illustrated through Harvey balls.</li> <li>Each quadrant of the Harvey ball represents 25% progress. Quadrants will progressively fill with solid colours as the criteria is completed.</li> <li>The Harvey Ball will be coloured red, amber or green based on if the criteria is on track, at risk or late.</li> <li>All responses are unweighted.</li> </ul>	<p><b>Status: On track Progress: 1 - 24%</b></p> <p><b>Status: At risk Progress: 25 - 49%</b></p> <p><b>Status: Late Progress: 50 - 74%</b></p>
Metering Transition Plan Status (MTP)	<ul style="list-style-type: none"> <li>Status monitoring of defined activities in the MTP. The MTP outlines the expected activities, responsibilities, timeframes, as well as other necessary elements required for completion of the 5MS and GS metering transition.</li> </ul>	<ul style="list-style-type: none"> <li>For the following sub-categories defined in the MTP, is your organisation on track to complete the associated activities (MDP related only) by the defined transition end date?                             <ol style="list-style-type: none"> <li>BULK / Wholesale Meters (S13)</li> <li>Type 1-3, subset of 4 (S14)</li> <li>Cross Boundary Meters (KNOWN) (S15)</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Participants are asked to provide their status towards completing activities by the transition end date for each defined sub-category in the MTP (Complete, On track (started), On track (not started), At risk, Late, n/a).</li> <li>Given that a sub-category has multiple activities supported by various participant types, respondents were only expected to provide status reporting for activities that were relevant to their participant type.</li> </ul>	<ul style="list-style-type: none"> <li>All responses are presented in a pie chart. A separate pie chart will also illustrate the proportion of all responses with n/a responses omitted.</li> <li>All responses are unweighted.</li> </ul>	

# Readiness Reporting Round 1 – Results on a page

	AEMO	Generator	Retailer	DNBP	TNSP	MP	MDP	Total (not incl. AEMO)
Overall program delivery progress and status								
General criteria (Program establishment)								
<div> <div> <h3>Presenting overall progression</h3> <p>Each Harvey ball presents the average progression from all responses, rounded to the nearest 25% quadrant.</p> <p><b>Example</b> – 8 retailers responding with their status and progress on their ability to submit 5-minute bids</p> <ul style="list-style-type: none"> <li>If 7 generators responded they were at 1-24%, and 1 more at 25-49%, then the average progress for this criteria, rounded to the nearest quadrant is 1-24%</li> <li>If 3 generators responded they were at 1-24%, and 3 at 25-49%, 2 at 50-74%, then the average progress for this criteria, rounded to the nearest quadrant is 25-49%</li> </ul> </div> <div> <h3>Presenting overall status</h3> <p>Presenting overall status of a participant type on aggregate will require some level of judgement when preparing the Market Readiness Report. For example, if all but one retailer reports “on track” for their readiness criteria, AEMO will need to aggregate to either “within schedule”, “at risk”, or “late”, for the overall retailer category status. AEMO will take into account the below considerations when presenting overall status across multiple participants:</p> <ul style="list-style-type: none"> <li>Participant market share</li> <li>The likelihood of overall impact on industry readiness, including any dependencies that could have consequential impacts for other participants</li> <li>The possible outcomes of any listed mitigating controls and work-arounds.</li> </ul> <p><b>Example</b> – 8 generators responded with their status and progress on their ability to submit 5-minute bids</p> <ul style="list-style-type: none"> <li>If 4 generators responded “On track” and 3 generators responded “At risk”, then AEMO would report the overall status as “At risk” if the 3 “At risk” generators are likely to impact on overall industry readiness</li> </ul> </div> </div>								
Metering Transition Plan status - consolidated	-	-						

# Readiness Reporting Round 1 – Results on a page

	AEMO	Generator	Retailer	DNSP	TNSP	MP	MDP	Total (not incl. AEMO)
Overall program delivery progress and status								
General criteria (Program establishment) - Consolidated readiness	-							
Specific criteria (Capability development) - Consolidated readiness	-					-	-	
Ability to support 5-minute reallocations	-			-	-	-	-	
Ability to receive and reconcile 5-minute settlements data	-					-	-	
Ability to receive and reconcile UFE allocations data	-	-		-	-	-	-	
Ability to submit 5-minute bids	-		-	-	-	-	-	
Metering Transition Plan status - consolidated	-	-	-					

# Readiness Reporting - commentary

Overall program status: **On track**  
Overall progress: 1-24% complete

Participant programs across all segments established, with systems designs commenced and operational impact assessments conducted, with generally reported on track status

- Almost all participants reported on track status, and 1 – 24% overall program delivery progress
- 2 participants indicated progress was at 25 – 49%
- 1 participant reported at risk status for overall project delivery

Overall project establishment status: **On track**

Majority of programs are funded, with established project plans, project teams on boarded:

- 5 organisations are yet to secure funding with 2 at risk
- 4 organisations are yet to formalise project plans although only 1 has indicated this is at risk

All respondents report an intention to participate in Market trials.

AEMO program status: **On track**

The AEMO program is proceeding on track and in line with overall program milestones.

Overall specific criteria status: **On track**

Progress against specific readiness capability reflects overall program reporting and in general is reported as on track

- A number of respondents (DNSP/ Retailers) are reporting impacts from other market change initiatives on programs
- 2 generators reporting schedule being at risk, with mitigations being applied

# Readiness Reporting - commentary

## Overall MTP Status: **On track**

- Progress on Metering Transition spans 4 participant groups with activity timeframes from present through Dec 2022.
- Activity is general reported as “underway, on track” and “not started, on track”.
- A number of participants have reported “N/A” on activities
- 2-3 key MP participants with responsibility of wholesale meters are not currently reporting progress, and will be engaged in the next period

## MTP monitoring: Observations and discussion points

- Complete the data cleanse of meter installation type codes in MSATS [S39] - Transition end date Nov 2019
  - The transition end date for this activity has now passed. Only two MPs have reported this activity as being completed while all other MPs are still reporting it as being on track.
- Replacing or reconfiguring BULK/Wholesale, Type 1-3, and Subset of type 4 meters [S01, S02, S03, S04] – Transition end date 31 March 2020
  - The transition end date is approaching for these activities. However a number of MPs reported that they have not commenced these activities are still reporting a status of on track.
- MPs and MDPs reporting 'n/a' to a large number of metering transition plan activities
  - Should results be segmented into network service providers with MP/MDP functions, and other pure MP/MDPs?
- Further engagement with TNSPs that are MPs for BULK/Wholesale Meters required
- Some participants have asked for clarifications as to how some metering transition activities will be implemented.



# Risks and issues – to be considered at next RWG

Raised risk	Comments
<ul style="list-style-type: none"> <li>Other industry initiatives are impacting the same resource and systems (e.g. Customer Switching)</li> </ul>	<ul style="list-style-type: none"> <li>Other NEM reforms requiring the same resources as 5MS and GS are an identified industry risk, considered and managed via the Industry issues and risk register [R06]. AEMO consolidation of program for consultations and delivery dates</li> </ul>
<ul style="list-style-type: none"> <li>There is insufficient time in the testing schedule for remediation</li> </ul>	<ul style="list-style-type: none"> <li>Detail test plans and cycles to be established by ITWG, Staging environment established to reduce integration issues prior to participant test execution</li> </ul>
<ul style="list-style-type: none"> <li>Response action for high impact risks including failure of participants to be ready has not been adequately addressed.</li> </ul>	<ul style="list-style-type: none"> <li>The Contingency Plan outlines the appropriate response should high impact risks eventuate, including if there is a critical mass of participants that are not ready</li> </ul>
<ul style="list-style-type: none"> <li>Uncertainty on the methods to implement transition activities as per the MTP creates risk for readiness for industry and AEMO (e.g. for Aligning NMISuffix with Register ID)</li> </ul>	<ul style="list-style-type: none"> <li>The Transition Focus Group reconvened on 28 February 2020 to discuss how the MTP can be implemented including approaches for MSATS standing data updates</li> </ul>
<ul style="list-style-type: none"> <li>A number of risks in AEMO's register require updates and comments as the version on AEMO's website is Oct 2019.</li> </ul>	<ul style="list-style-type: none"> <li>The latest version has been uploaded to the website</li> </ul>

**Discussion:** What further risks/issues should be raised for discussion at next RWG risk/issues workshop in April?



# Discussion points - Other

- One participant requested clarity on how AEMO will provide validation of Global Settlement Calculations
  - AEMO to provide update on approach to PCF
- Usefulness of the vendor impact set of questions as component of survey for purpose of establishment readiness status
- Participant interpretation for individual status regarding reallocations capability

# Review of readiness reporting plan

- AEMO committed to reviewing Industry readiness reporting plan after round #1

## DISCUSSION POINTS:

- Presentation approach and format of readiness reporting results
  - Results by participant type
  - Different presentation format
  - Presentation of critical stakeholder readiness
- Do participants see value in AEMO releasing individual survey responses?
  - Extent that individual participant responses should be transparent to the industry (e.g. fully identifiable, identifiable to the participant type, comments removed)
- Are there any other readiness criteria that should be monitored through readiness reporting?
- Any other changes to the readiness reporting plan?
- Revision process

# 5MS Industry readiness contingency plan

Emily Brodie

# 5MS Industry readiness contingency plan: Critical participants

- Plan released Fri 6 March as '2<sup>nd</sup> draft' rather than final version
- As well as incorporating stakeholder feedback, introduced substantive new sections on establishing critical participants:
  - All participants responsible for NER compliance by the regulated dates
  - Risk that not all participants will complete their programs by key dates
  - Therefore, some elements of the contingency plan refer to the concept of 'critical mass', where a 'critical mass' of ready participants is required for:
    - Successful 5MS/GS commencements
    - Wholesale market operations to be uninterrupted and reliable under 5MS and GS, consistent with the 5MS/GS market readiness objective.
- 2<sup>nd</sup> draft plan
  - For each participant type, identifies essential functions for 5MS/GS and uninterrupted and reliable wholesale market operations
  - Proposes approaches to establishing 'critical mass' of each relevant participant type
- Opportunity for further RWG consideration

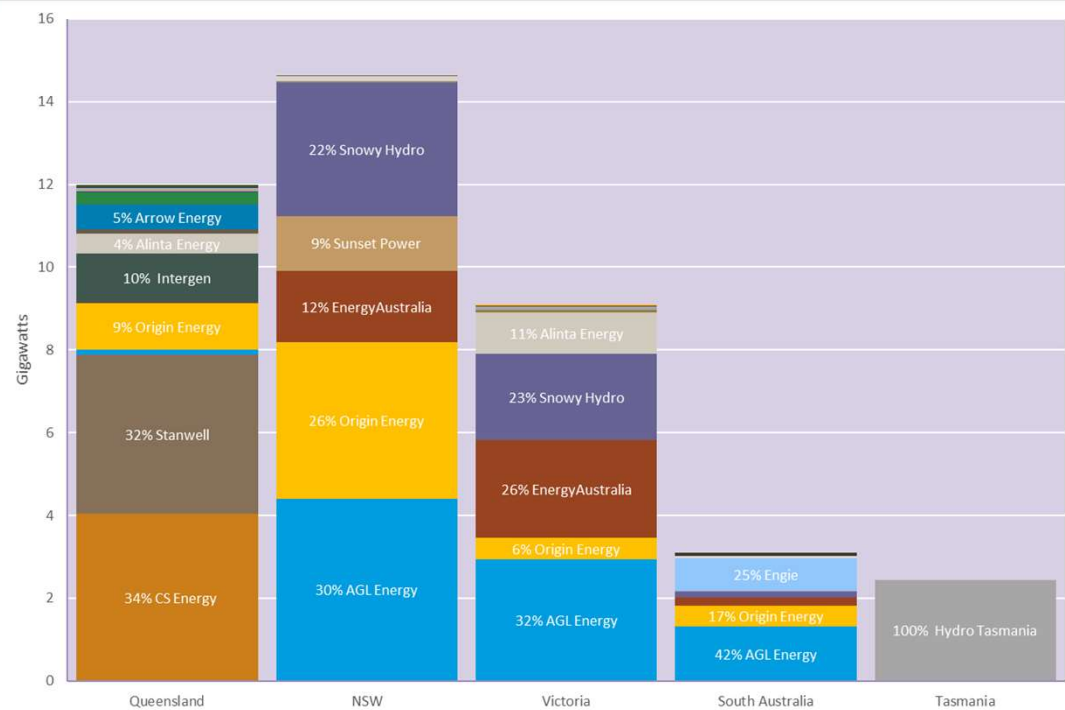
# Proposed critical participants and metrics for critical mass (1)

Critical participant type	Essential function for 5MS/GS	Essential function for uninterrupted and reliable wholesale market operations	Proposed 'critical mass' metric
Generator/ Market Network Service Providers	<ul style="list-style-type: none"> <li>5-minute bidding</li> </ul>	<ul style="list-style-type: none"> <li>Pay settlement invoices</li> </ul>	Referenced to AEMO's thresholds for suspending the spot market in System Operating Procedure SO_OP_3706.
Retailers	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<ul style="list-style-type: none"> <li>Pay settlement invoices</li> </ul>	<p>In a NEM region, sufficient ROLR capability plus retailers representing:</p> <ul style="list-style-type: none"> <li>80% of annual settlement volume, or</li> <li>more than 80% of annual settlement volume if AEMO determines this level is required for wholesale market operations to be uninterrupted and reliable under 5MS and GS.</li> </ul>

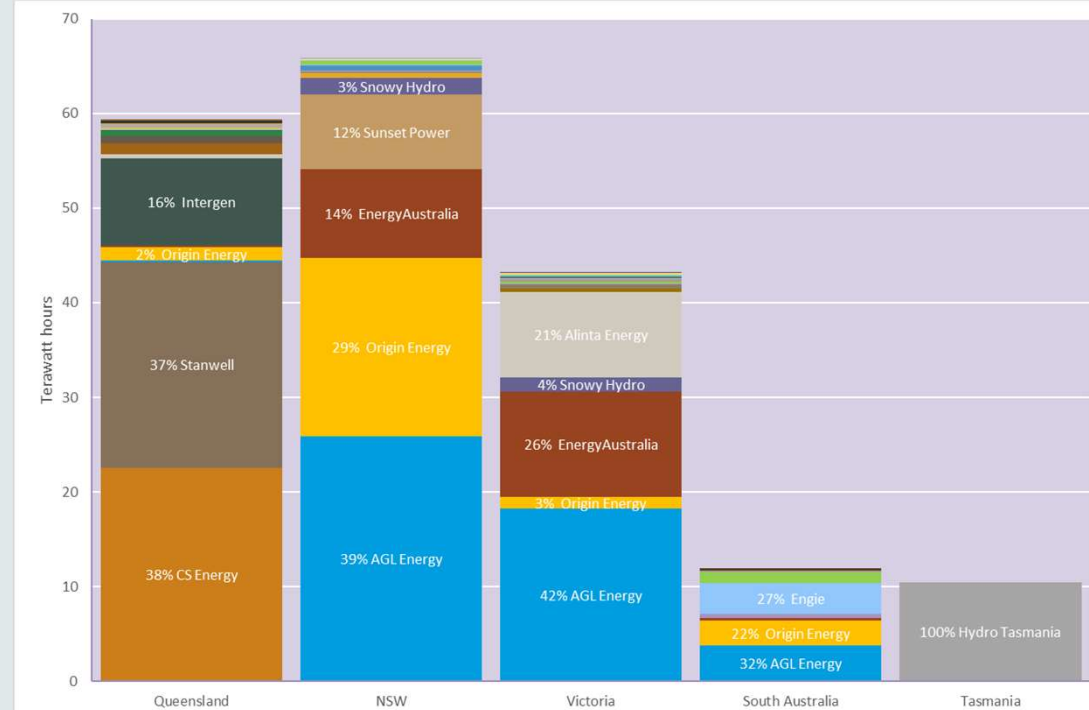
# Generation market shares

Source: AER *State of the energy market – Data update November 2019*

Market shares in generation: Capacity

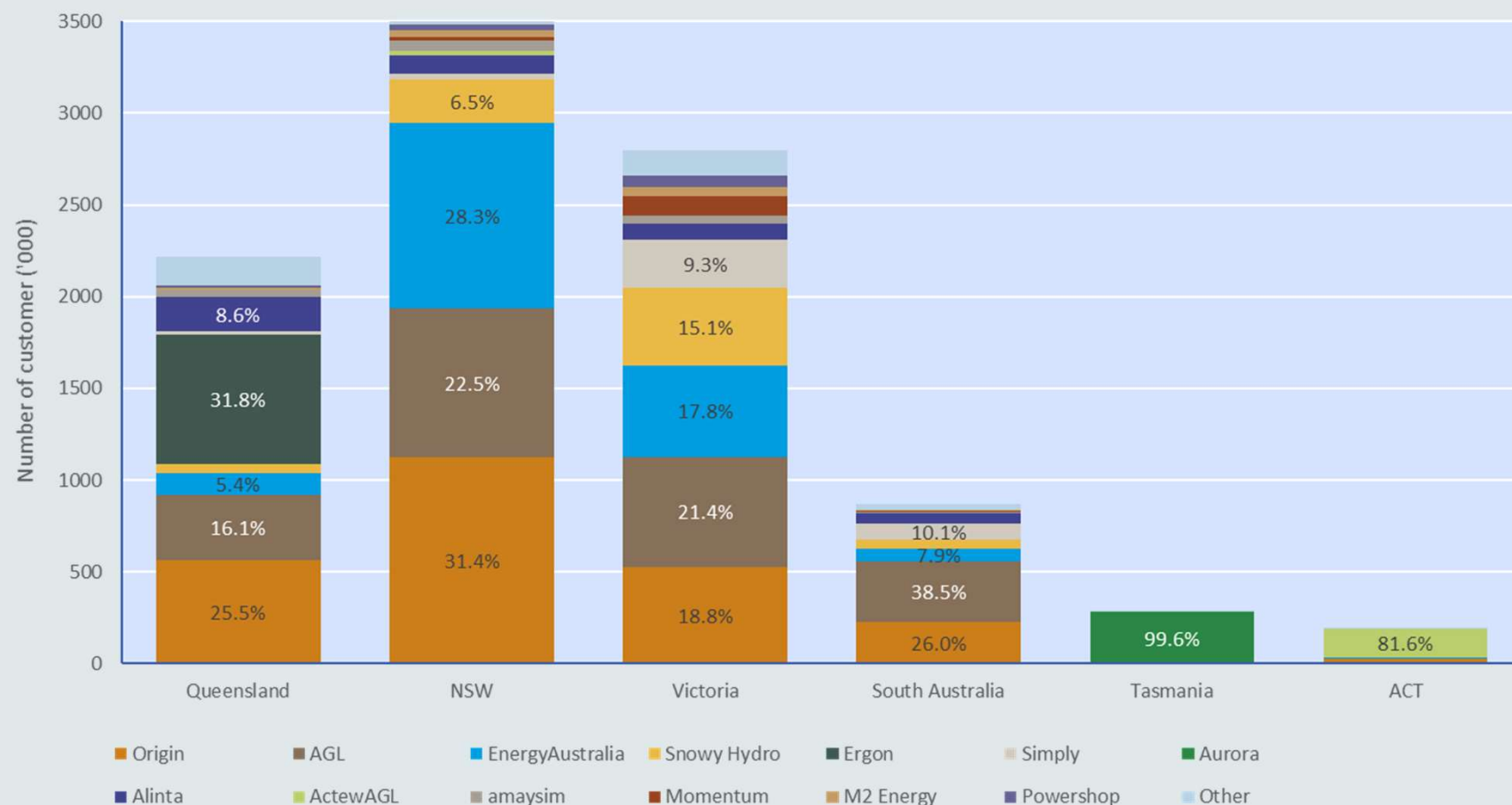


Market shares in generation: Output



# Electricity retail market share (small customers)

Source: AER *State of the energy market – Data update November 2019*



Indication of major NEM retailers, based on publicly available information.

This indication of market share is based on retailers' coverage of small customers only (i.e. not including number of commercial and industrial customers).

This information cannot be compared to share of NEM settlement volumes – the metric AEMO proposes to use to determine critical mass of retailers for 5MS/GS.

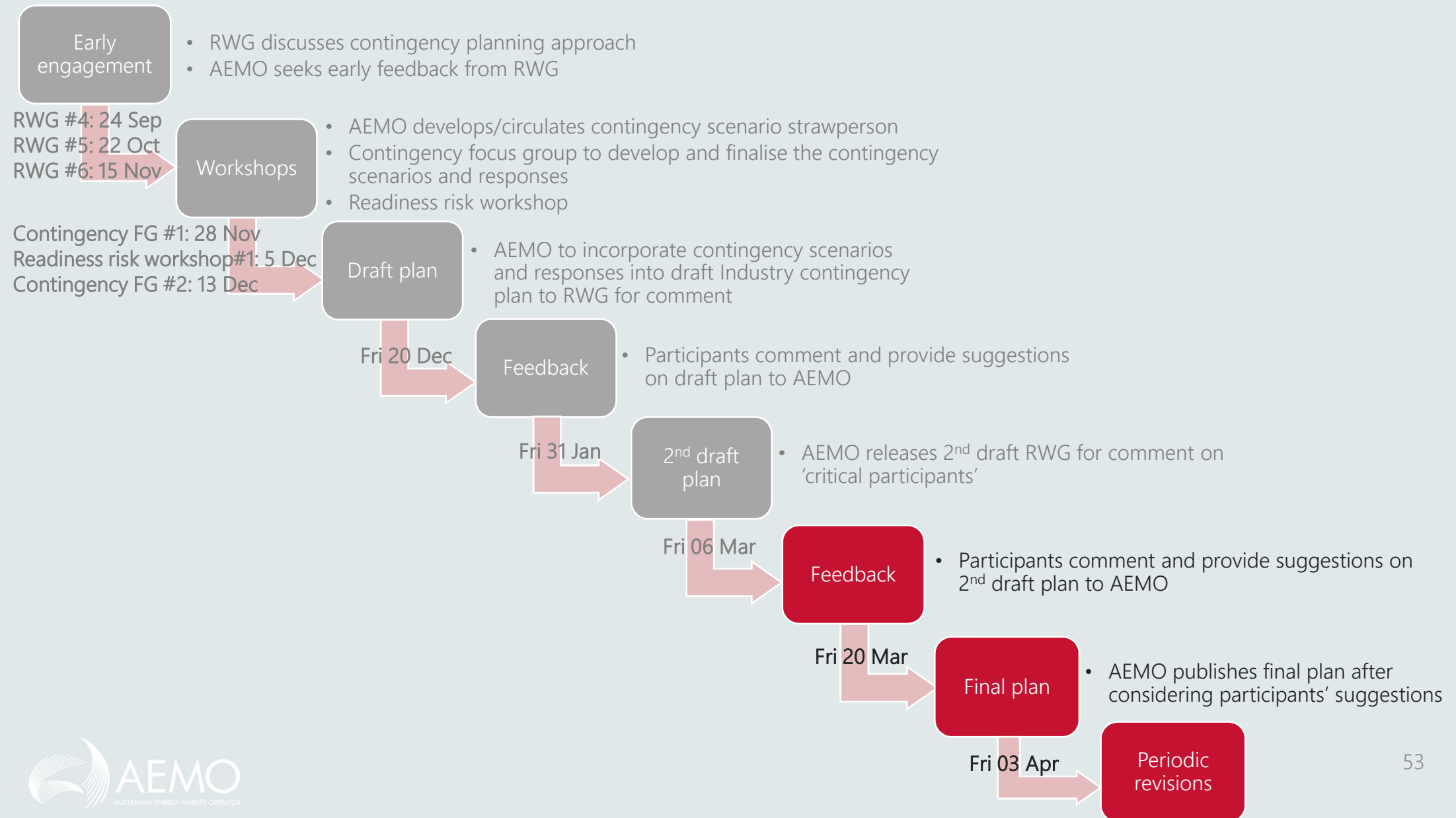
However this information does provide an indication of the participants who may be considered in the critical mass grouping.

# Proposed critical participants and metrics for critical mass ()

Critical participant type	Essential function for 5MS/GS	Essential function for uninterrupted and reliable wholesale market operations	Proposed 'critical mass' metric
MPs/MCs	<ul style="list-style-type: none"> <li>Wholesale meters need to be capable of reading and communicating 5-min data</li> </ul>		All MPs/MCs who are responsible for wholesale metering
MDPs	<ul style="list-style-type: none"> <li>Wholesale meters need to be capable of reading and communicating 5-min data</li> </ul>		All MDPs who are responsible for wholesale metering data delivery
TNSPs	<ul style="list-style-type: none"> <li>Energy inflows from transmission networks into distribution networks to be 5-min metered for meaningful profiling of non-5-min metering data.</li> </ul>		All TNSPs who are responsible for updating the NMI Classification Code to "BULK" for transmission network to distribution network connection points



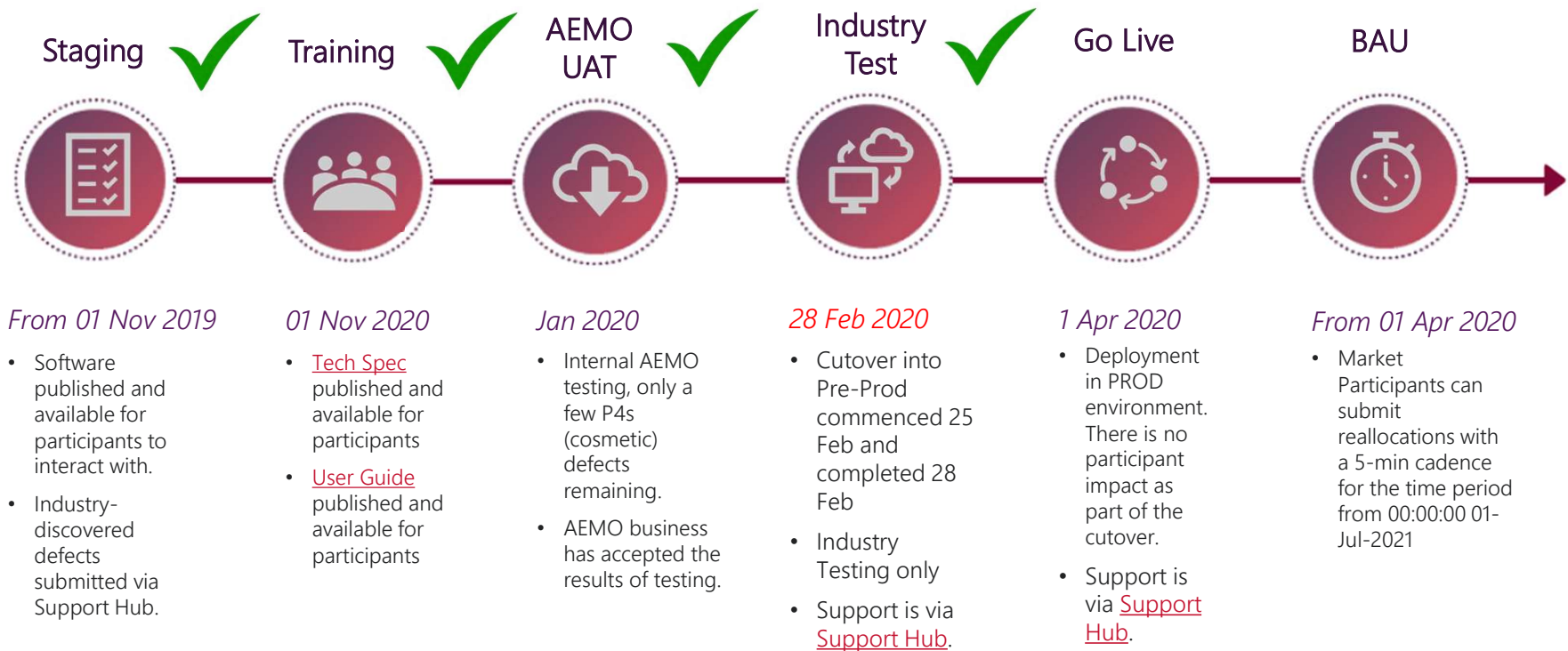
# Proposed next steps – for discussion



# Cutover approaches for reallocations

Greg Minney

# 5MS Release 1: Reallocations



# Forward meeting plan

Greg Minney

# Upcoming RWG meetings: Proposed content

- Seeking feedback for proposed content/topic areas

Meeting Date	Meeting	Proposed Content
14 Apr 20	RWG #10	<ul style="list-style-type: none"><li>• Risks, issues and contingencies workshop including recommendations to PCF</li><li>• Briefing on further readiness reporting analysis and actions, including MTP activity</li><li>• Debrief on reallocations go-live</li></ul>
14-May-20	RWG #11	<ul style="list-style-type: none"><li>• Industry readiness reporting – Round #2</li><li>• Dispatch Transition Plan approach</li></ul>

# 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](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 2/03/2020

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	25	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.

# General questions

Greg Minney



