

# 5MS & GS Readiness Working Group #2

Friday 26<sup>th</sup> July, 2019

## **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	AGENDA ITEM	RESPONSIBLE
<b>Preliminary matters</b>			
1	10:00am – 10:15am	Welcome, introduction and apologies	Greg Minney (AEMO)
2	10:15am – 10:25am	Minutes and actions from previous meeting	Emily Brodie (AEMO)
<b>Matters for noting</b>			
3	10:25am – 10:35am	Market readiness strategy update	Emily Brodie (AEMO)
<b>Matters for discussion</b>			
4	10:35am – 11:15am	Transition principles and approach	Greg Minney (AEMO)
<b>BREAK 11:15am – 11:25am</b>			
5	11:25am – 11:55am	Industry testing approach	Tui Grant (AEMO)
6	11:55am – 12:10pm	Interim readiness reporting	Emily Brodie (AEMO)
7	12:10pm – 12:15pm	Deliverable timing feedback	Greg Minney (AEMO)
<b>Other business</b>			
8	12:15pm – 12:20pm	Forward meeting plan	Greg Minney (AEMO)
9	12:20pm – 1:00pm	General questions	Greg Minney (AEMO)

# Actions from previous meeting

Emily Brodie

# Responses to RWG actions

	Topic	Action	Response
1.1.1	Welcome and Introduction	Participants to confirm to <a href="mailto:5MS@aemo.com.au">5MS@aemo.com.au</a> if required to be added to the RWG distribution list.	n/a
1.8.1	Market Readiness Strategy	RWG to provide feedback to AEMO on indicative timelines presented.	One response, supportive of indicative timelines
1.9.1	Interim Readiness Reporting	AEMO to release proposed interim reporting commencement dates to RWG.	Email distributed to RWG on Monday 1 July
1.9.2	Interim Readiness Reporting	AEMO to provide the RWG with a draft interim readiness report structure for comment.	To be presented at this meeting (RWG #2)
1.10.1	Forward Meeting Plan	RWG members to provide proposed content/topic areas for upcoming RWG meetings.	One response, did not suggest a change to the forward agenda

# Other feedback from RWG members

- Need to provide specific definitions for terms such as:
  - Industry testing
  - Market trial
  - Transition
  - Cutover
- Proposal for additional focus groups, for example:
  - Testing
  - Cutover
  - MSATS standing data
- Suggestions on structure and content of readiness strategies and plans

# Market readiness strategy update

Emily Brodie

# Market readiness strategy update

- AEMO is tracking to release the *draft* market readiness strategy for RWG comment ahead of the indicative date of 30 August
- Propose to:
  - distribute draft strategy to RWG members by email
  - cc PCF members for their information

**Question:** What is a suitable time period for RWG members to provide considered comments on the strategy back to AEMO?  
Suggest 3 weeks.

# Transition Approach

Greg Minney



# 5MS and GS Transition Strategy

## Agenda

- Objectives of presentation
- Context
- Development approach
- Transition approach strawman
- Market systems and metering transition
- Participant systems impact
- Industry test and market trial
- Key points for discussion
- Next steps

# Objectives of presentation

- Establish common understanding of transition scope
- Develop framework for collaborative approach to move from strawman to adopted transition approach
- Define key transition strategy principles
  - Meet mandated dates
  - Support uninterrupted NEM operation during period of transition
  - Minimise go-live and market start risks
  - Introduce certainty for project planning purposes

# Development approach

- Establish strawperson of overall transition approach
- In collaboration with RWG
  - Develop common understanding
  - Identify and understand impacts of approach
  - Identify key issues to be addressed
  - Evaluate trade-offs between different positions
  - Refine transition approach
- Document in *Draft Transition and Go-live Strategy*
  - Distribute for consultation
- Consolidate feedback with RWG input
- Publish *Transition and Go Live Strategy*

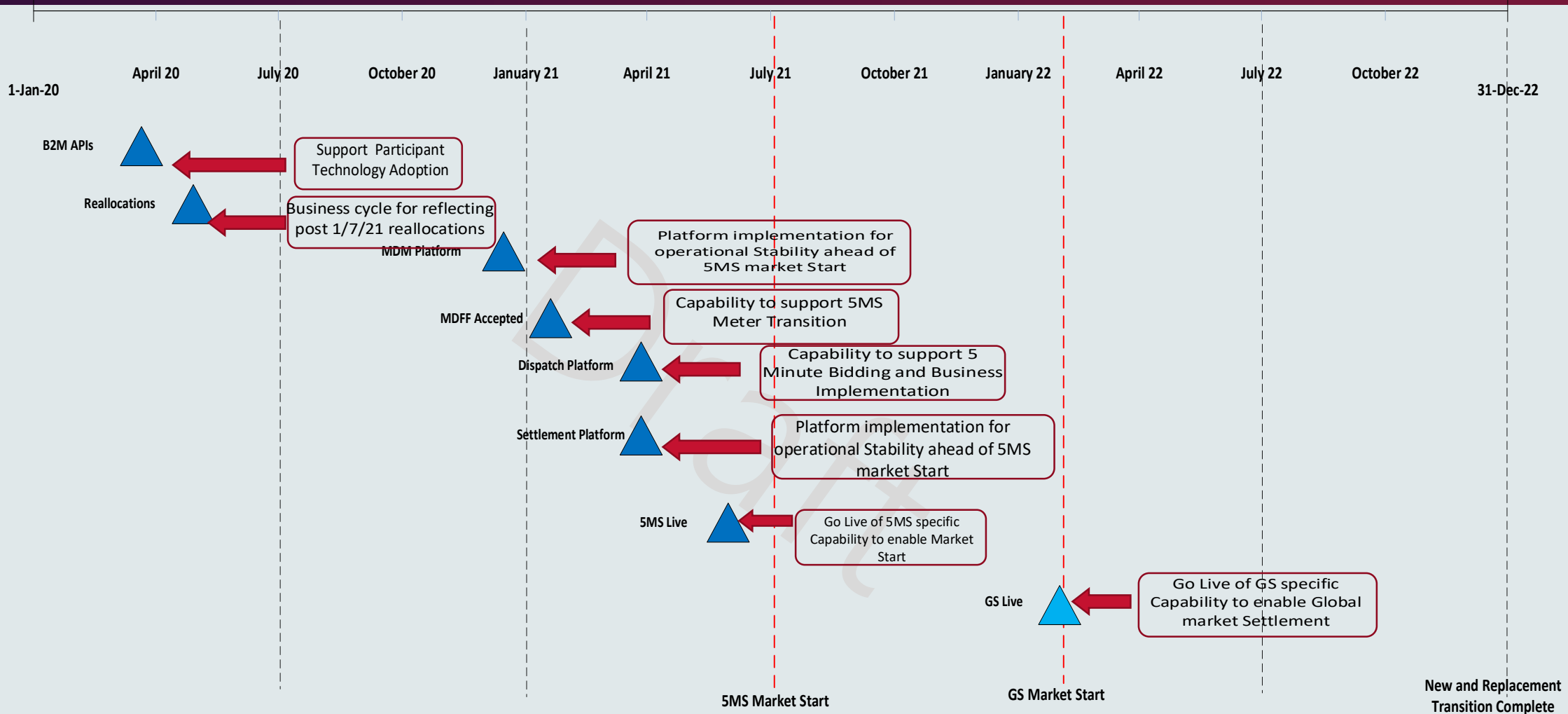
# Context and background (1)

- Power of Choice program was implemented with a “big bang” approach
- For 5MS and GS, Industry has consistently flagged a preference for a phased implementation that avoids a big bang implementation
- The mandated dates for market start assume a level of preparatory activity e.g. 5MS metering transition

# Context and background (2)

- Individual workstreams (systems, procedures) have proposed transitional approaches within key areas
- Transition Strategy consolidates those individual approaches in-line with the objectives to enable a program level approach to be formalised
  - Present this as a Strawperson
- Our challenge:
  - Develop transition plan, considering industry positions, into an integrated whole that best meets the transition strategy principles

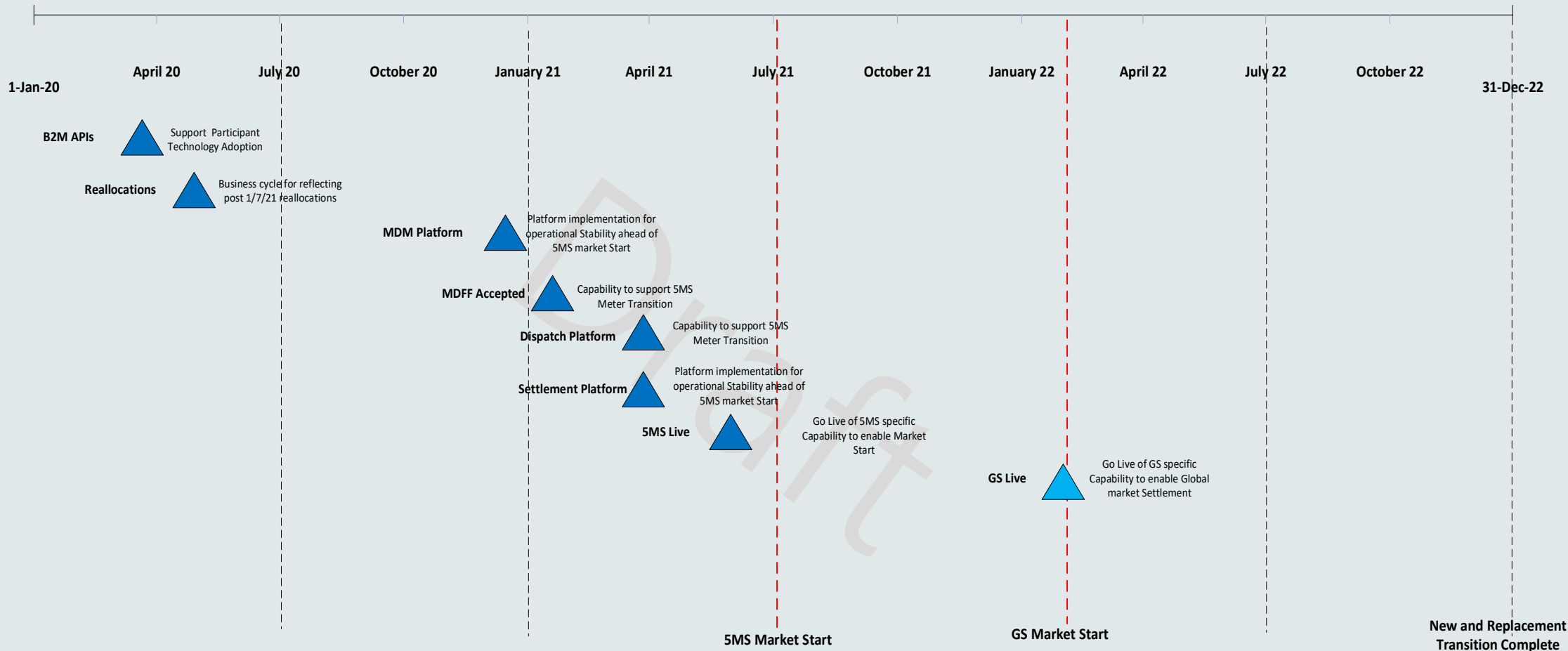
# Staged Transition – System Implementations



## Transition Objectives:

- Meet mandated dates
- Support uninterrupted NEM operation during period of transition
- Minimise go-live and market start risks
- Introduce certainty for project planning purposes

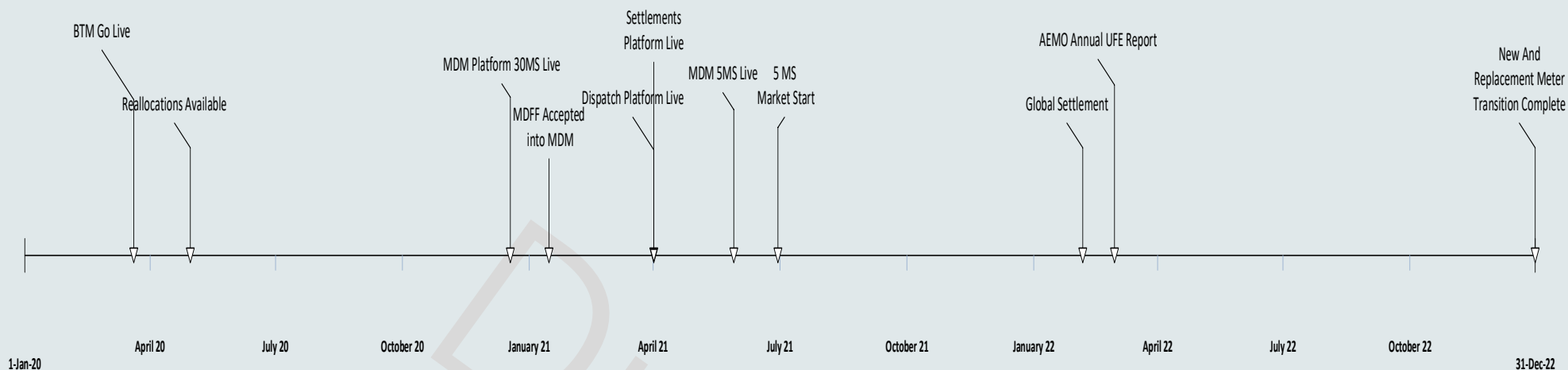
# Staged Transition – System Implementations (without animations)



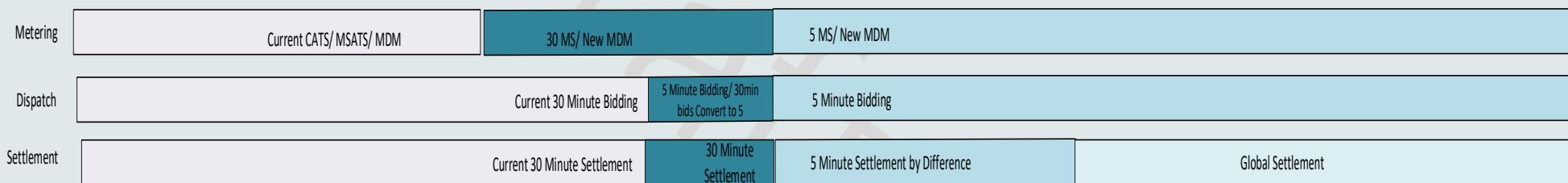
## Transition Objectives:

- Meet mandated dates
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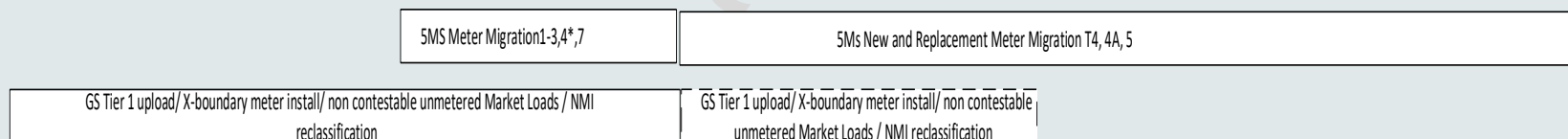
# Market Systems and Metering transition



## Systems Transition



## Metering Transition

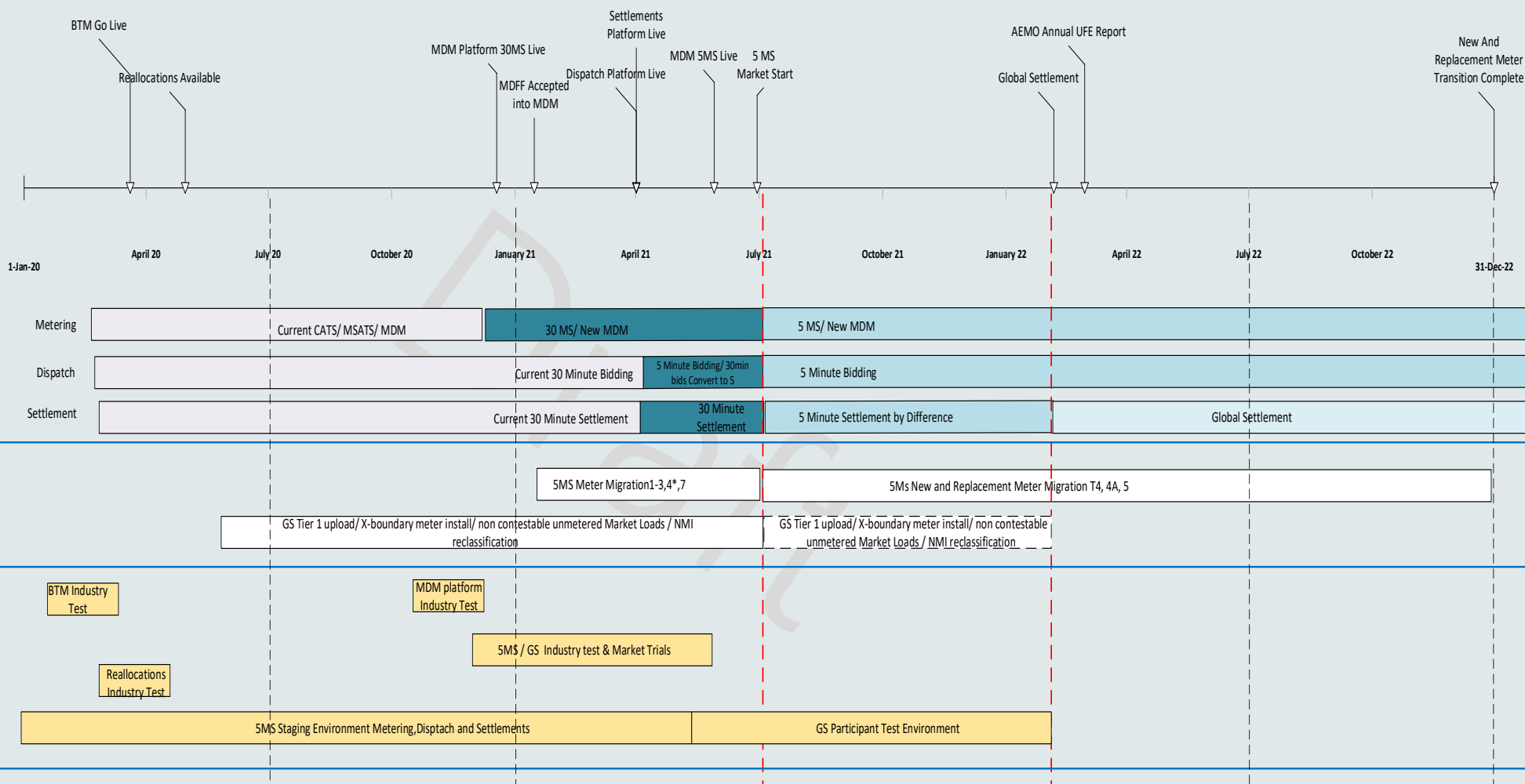


### Phased Implementation of platforms:

- Operational stabilisation on a 30-minute settlement basis
- Provides capability required to support 5MS and GS metering transition and metering data population



# Industry Testing and Market Trials



- Market trials and industry testing to support the phased introduction of capability
- Market trial required where major functional change affecting multiple participants is necessary to be trialled (trials are high effort and resource intensive for all involved)
- Targeted industry testing utilised where possible

# Participant Impact by release (indicative only)

Participant type	B2M	Reallocations	MDM Platform	MDFF Acceptance	Settlement Platform	Dispatch Platform	5MS Go Live	GS Go Live
<b>Retailer</b>	Impact only if utilising B2M APIs	Capability to establish post 1/7/2021 reallocations	<ul style="list-style-type: none"> <li>- MDM platform upgrade some MSATS</li> <li>- Browser and RM Report Changes</li> </ul>	<ul style="list-style-type: none"> <li>- 5 minute data summarised to 30 minute for settlement</li> <li>- Potential B2B delivery of 5 minute data</li> </ul>	<ul style="list-style-type: none"> <li>- Settlement platform @ 30 minute</li> <li>- Potential invoice format change</li> </ul>	<ul style="list-style-type: none"> <li>- Dispatch platform upgrade implemented</li> <li>- Bidding available @ 5 minute</li> </ul>	<ul style="list-style-type: none"> <li>- All 5MS capability live</li> <li>- UFE Reporting implemented</li> </ul>	GS financial Settlement
<b>Metering Service Provider</b>	Impact only if utilising B2M APIs		<ul style="list-style-type: none"> <li>- MDM platform upgrade some MSATS</li> <li>- Browser and RM Report Changes</li> </ul>	<ul style="list-style-type: none"> <li>- MDFF @ 5 minute granularity</li> </ul>			<ul style="list-style-type: none"> <li>- All interval Meters delivered in MDFF format for Settlement</li> </ul>	
<b>Generator</b>		Capability to establish post 1/7/2021 reallocations		<ul style="list-style-type: none"> <li>- 5 minute data summarised to 30 minute for settlement</li> <li>- Potential B2B delivery of 5 minute data</li> </ul>	<ul style="list-style-type: none"> <li>- Settlement platform @ 30 minute</li> <li>- Potential invoice format change</li> </ul>	<ul style="list-style-type: none"> <li>- Dispatch platform upgrade implemented</li> <li>- Bidding available @ 5 minute</li> </ul>	<ul style="list-style-type: none"> <li>- All 5MS capability live</li> <li>- UFE Reporting implemented</li> </ul>	
<b>Network Service Provider</b>	Impact only if utilising B2M APIs		<ul style="list-style-type: none"> <li>- MDM platform upgrade some MSATS</li> <li>- Browser and RM Report Changes</li> </ul>	<ul style="list-style-type: none"> <li>- 5 minute data summarised to 30 minute for settlement</li> <li>- Potential B2B delivery of 5 minute data</li> </ul>				

- Level of impact of each release dependent on Participant type and individual technology approaches
- Level of participant impact also drives Industry Test and Market Trials approach

# Key Issues

Key issues to be addressed:

- Global settlement industry testing and market trial approach
- Timeframes required for metering transition activities
- Timeframes and scopes for Market trials and Industry test periods
- Others

# Next Steps

- Participants to consider transition strategy in-line with their own implementation programs (2 weeks)
  - Develop and document key issues to be addressed, and any alternative approach(es) to resolve
- AEMO to:
  - consolidate key issues
  - schedule Transition Focus Group (likely 3 weeks time, mid to late August, TBC)
- AEMO continues working through internal AEMO details that affect transition

# Transition Focus Group

- Transition Focus Group to collaboratively establish:
  - Trade-offs between positions required to best meet overall transition objectives
  - Areas where further impact assessment is required to establish preferred position
  - Produce refined transition approach
- Draft *Transition and Go Live Strategy* deliverable target 30 September
  - Release for industry consultation

Break

# Industry Testing Principles

Tui Grant

# 5MS AEMO - Testing

- When changes are introduced into Production, AEMO currently conducts three main types of testing with the Industry:
  - Industry Testing
  - Invitation Industry Testing
  - Market Trials
- In addition, AEMO will make the Pre-Production system available for participants to perform bi-lateral testing at any time



# 5MS Industry Testing Approach

- Changes deployed into Pre Prod before deployment into Production will be communicated to participants and available for participants to test/verify on an informal basis.
  - No formal tracking of testing or results will be provided prior to the changes being deployed to Production
  - Provides an opportunity for participant's to perform basic testing and become familiar with new screens, API's, verify ACK's on submission of 5 minute NEM12 files, etc.
- AEMO will provide support and defects investigation during this period to any participant requiring assistance

# 5MS Invitation Industry Testing

- As with Industry Testing, AEMO will make systems available to participants at various points in the development life cycle for participants to test.
- However, for invitation industry testing:
  - AEMO will reach out to participants who are in a position to test their solutions with changes deployed into Pre Prod
  - Specific testing will be agreed and executed during this period and reported between parties involved and AEMO only
  - Any participant may use and test in Pre Prod during this period without formal communication to AEMO
- AEMO will provide support and defects investigation during this period to any participant requiring assistance

# 5MS Market Trials

- Market Trials are a series of scenarios that validate outcomes across all market participant's, including AEMO
  - Scenarios are defined, allocated and agreed to by parties prior to execution and results are reported to all parties taking part in the market trials
  - Provides an opportunity for participant's to test their changes with AEMO and verify outcomes
  - Provides an opportunity for participant's to use data generated from other participant's to test their changes and verify outcomes
  - Participant's can test the new AEMO systems with existing market rules (i.e. 30-minute reads)
  - Participant's can also test the new AEMO systems with the new rules (i.e. 5-minute settlement)
- AEMO will provide support and defects investigation during this period to any participant requiring assistance

# 5MS Staging Environment

- Industry testing will be conducted in the Pre-Production environment as per the current process
  - After consideration for the length and number of changes, AEMO will be providing an additional test environment
- **5MS Staging will be made available by 1 November** to allow participants who are ready to test/verify changes to their solutions prior to these changes being available in Pre-Prod and Production
  - Changes will be deployed into this environment as per the dates communicated to participants in the SWG and RWG and be limited to the scope defined by each AEMO Project Manager
  - Formal notifications will be sent after each deployment confirming what has been deployed and reconfirming support arrangements
- AEMO will provide support and defect investigation during this period to any participant requiring assistance

# 5MS Proposed Testing (1)

- Reallocations
  - New reallocations screens supporting both current BAU and new 5MS functionality
  - Recommendation to make this change available for industry testing only
- B2M API's
  - Introduction of API functionality for B2M transactions and providing the ability to access MSATS via the web market portal
  - Recommendation to make this change available for invitation industry testing
- MDM
  - Introduction of a new MDM capable of supporting BAU and 5MS functionality
  - Recommendation to make this change available for invitation industry testing
- Settlements
  - Introduction of a new settlement system capable of supporting BAU and 5MS functionality
  - Recommendation to make this change available for Market Trials

# 5MS Proposed Testing (2)

- Dispatch and Bidding
  - Introduction of a new bidding and dispatch system capable of supporting BAU and 5MS functionality
  - Recommendation to make this change available for invitation industry testing
- 5 Minute Settlements
  - The market go live of 5 minute settlement functionality
  - Recommendation to make this change available for Market Trials
- Global Settlements.
  - The market go live of global settlements
  - Recommendation to make this change available for Market Trials

# Interim Readiness Reporting

Emily Brodie

# Interim Readiness Reporting - Background

- Full readiness reporting is planned to commence Feb 2020
- Participants' request via PCF for AEMO to investigate an approach to *Interim Readiness Reporting* ahead of full Market Readiness Reporting to establish general level of participant preparedness (baseline)
- *Interim Readiness Reporting* focuses on the level of establishment of implementation projects
- Subsequently, *Readiness Reporting* will focus on the delivery progress of these projects



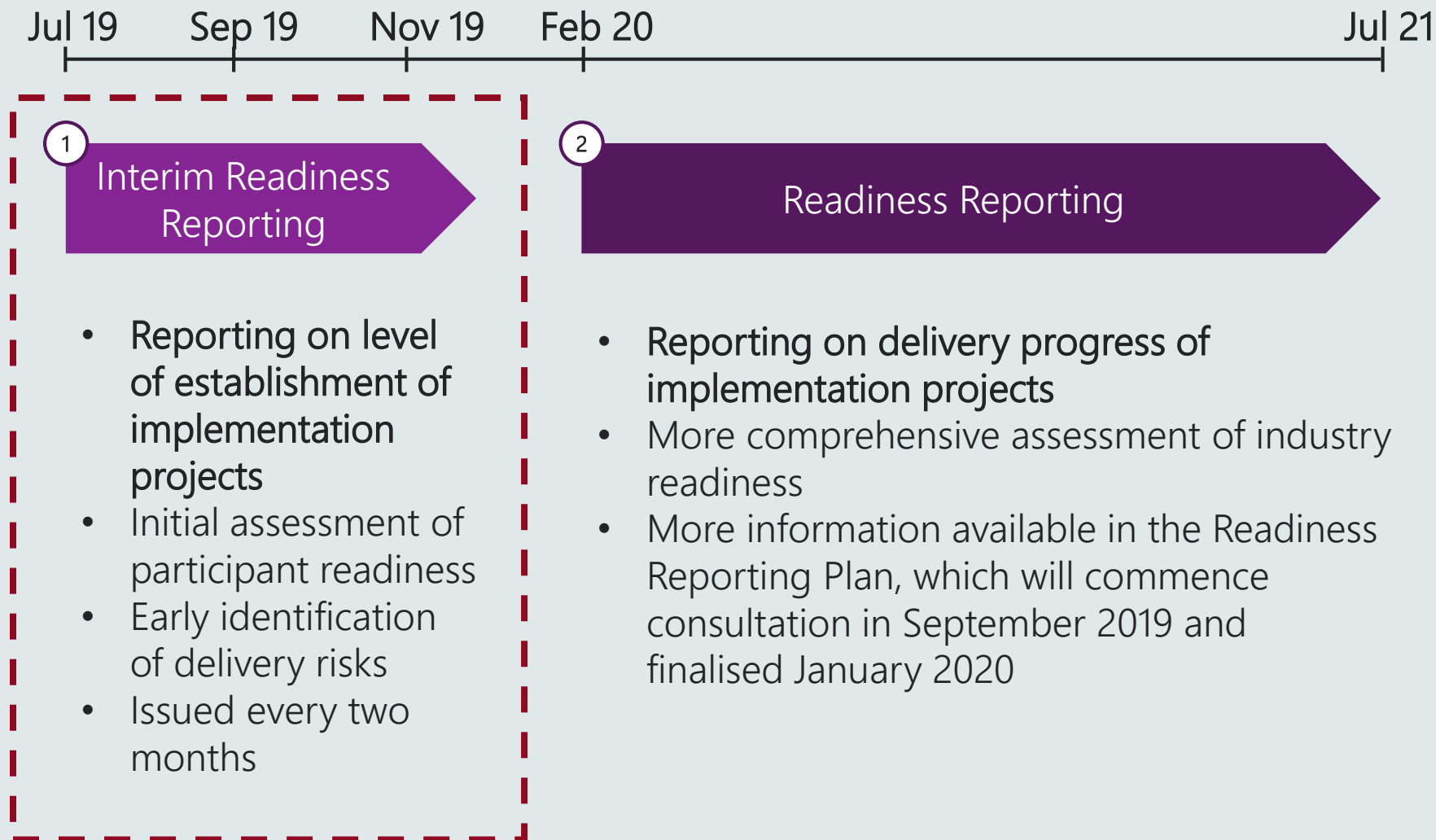
# Interim Readiness Reporting - Background

- AEMO sought RWG feedback on the *Interim Readiness Reporting* questions and received 6 responses.
- Key themes included:
  - Participants should be allowed to provide feedback over a progression scale in instead of Y/N responses (incorporated)
  - Reporting frequency requires clarification (every two months)
  - Questions should be more clear and direct to reduce interpretation (incorporated)
  - *Interim Readiness Reporting* should also include reporting on AEMO readiness (not incorporated)
    - AEMO readiness is already reported through regular status updates at the PCF, tracking across the delivery timeline and milestones

# Interim Readiness Reporting - Background

- Example question - Has funding for implementation activities been considered by your organisation for 5MS?
  - Response options (Fully Considered, Reasonably Considered, Somewhat Considered, To a Limited Extent, Not at All)
- Additional questions may be added to future surveys to expand on any identified themes

# Interim Readiness Reporting - Timeline



# Interim Readiness Reporting - Approach

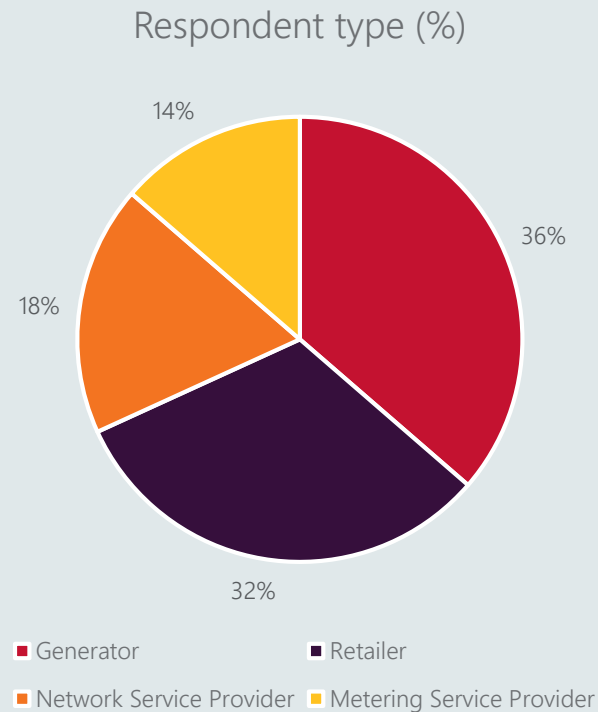
- AEMO will send out online surveys to the nominated Readiness Representative
- Readiness Representative to coordinate a response across the organisation, submitted separate responses for each participant category (e.g. Retailer, Generator, LNSP and MDP)
  - Participants are expected to provide honest self-assessment of status
- Participants are given two weeks to submit survey responses

# Interim Readiness Reporting - Approach

- AEMO will collate information and ensure that participant information:
  - Remains anonymous / confidential
  - Reported only at an aggregated level
- Reports will be provided to RWG, PCF, Executive Forum and also published on AEMO's website
- Interim Readiness Reporting Surveys will be sent out every two months in July 2019, September 2019 and November 2019. Readiness Reporting will commence in February 2020.
- Interim Readiness Reporting Questionnaire 1 Survey is currently open for submission until 31 July COB.

# Interim Readiness Reporting – Published report example format (1)

Figure 1: Interim Readiness Reporting –  
Participant respondent type (%), [Example]



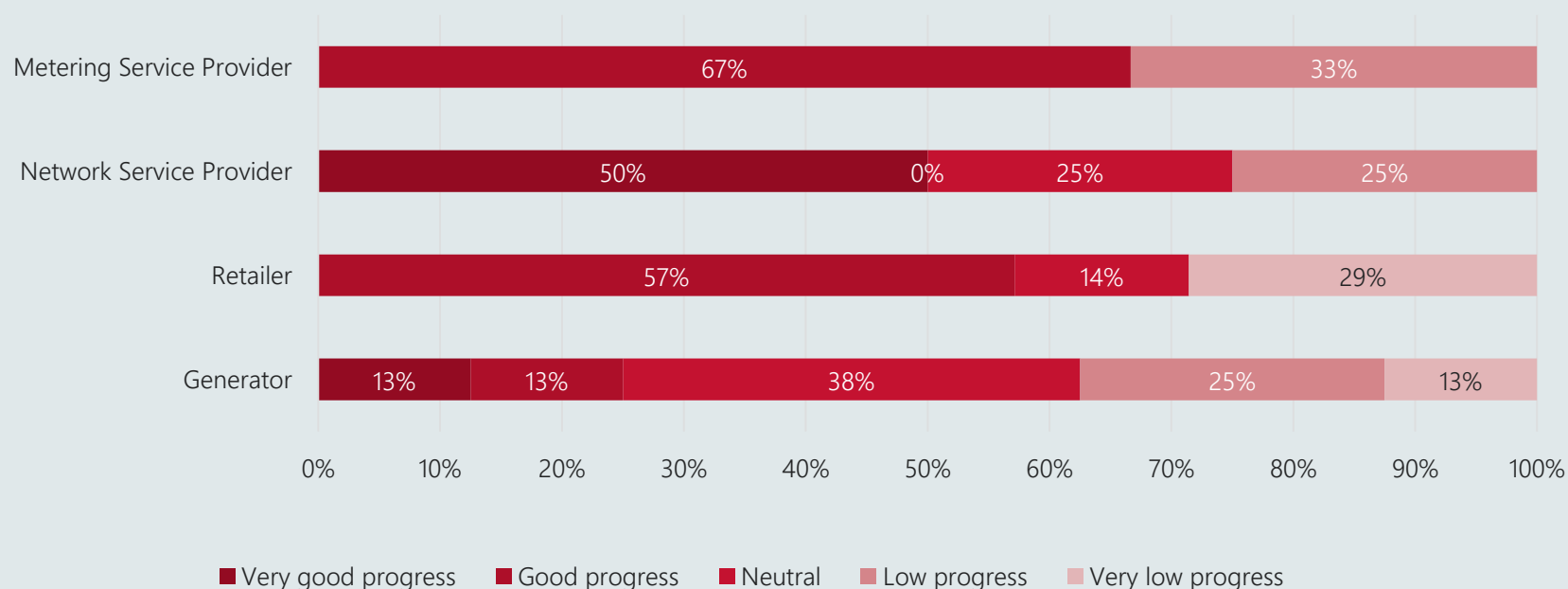
**Key Themes / comments:** Majority of participants were ...

**Risks / Issues:** A few participants had concerns regarding

# Interim Readiness Reporting – Published report example format (2)

Figure 2: Interim Readiness Reporting – Overall project status by participant type (%), [Example]

What is the overall status of your organisation's 5MS & GS Project (taking account of e.g. Plan, Budget, Team, Issue and Risk Management, and Governance)?



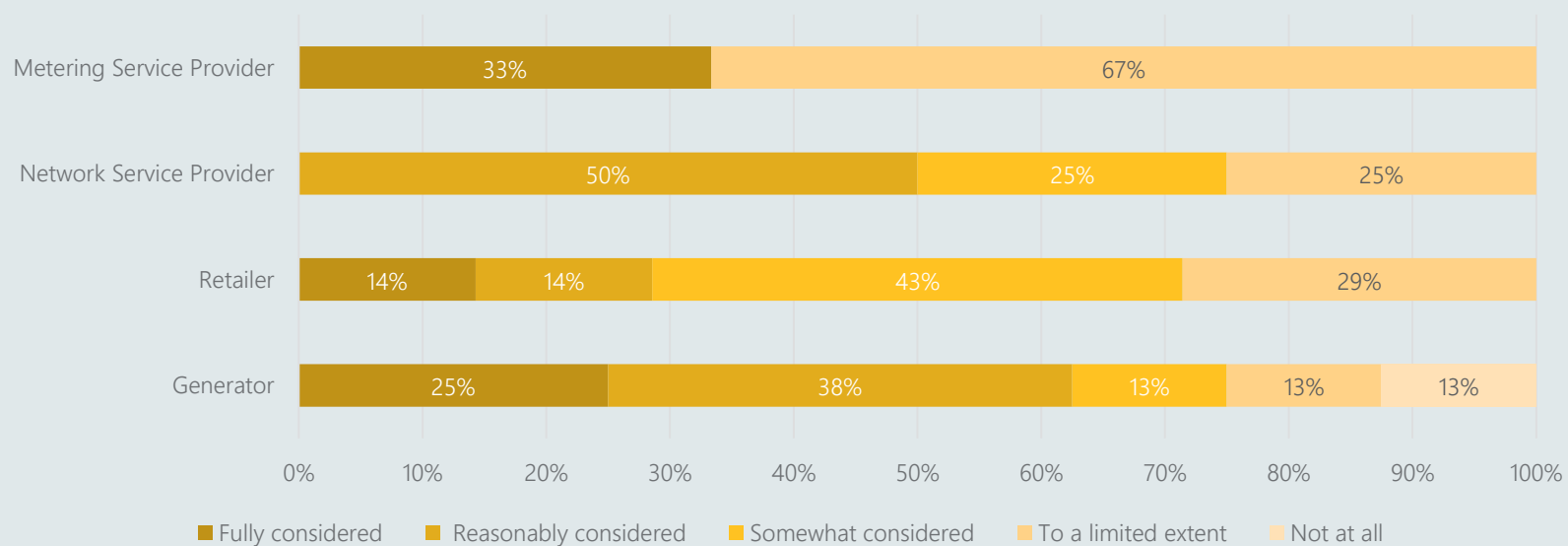
Key Themes / comments: Majority of participants were ...

Risks / Issues: A few participants had concerns regarding

# Interim Readiness Reporting – Published report example format (3)

Figure 3: Interim Readiness Reporting – Project funding considerations by participant type (%), [Example]

Has funding for implementation activities been considered by your organisation for 5MS?



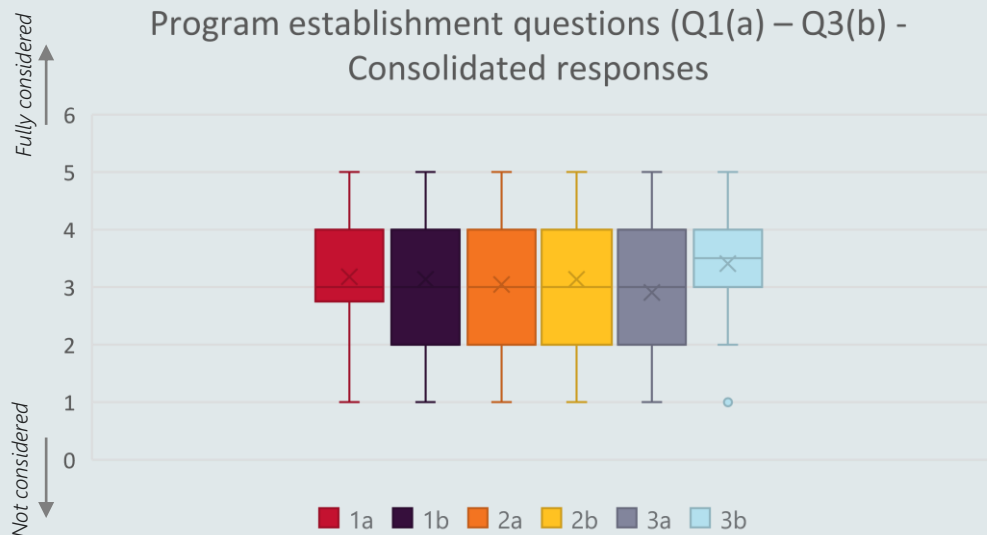
**Key Themes / comments:** Majority of participants were ...

**Risks / Issues:** A few participants had concerns regarding ...



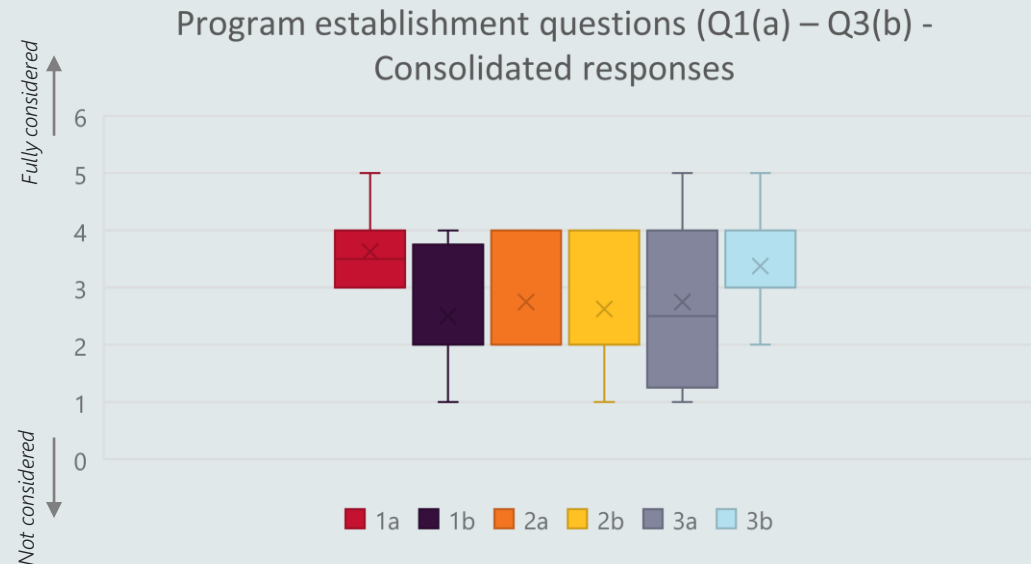
# Interim Readiness Reporting – Published report example format (4)

Figure 4: Interim Readiness Reporting – Project funding considerations, consolidated, [Example]



List of questions (Q1(a) – Q3(b))

Figure 5: Interim Readiness Reporting – Project funding considerations, by participant type, [Example]



- |     |   |
|-----|---|
| Q1  | For your organisation, what is the Executive Management's level of understanding of the scope of change required under: |
| (a) | 5 Minute Settlement   |
| (b) | Global Settlement   |
| Q2  | Has funding implementation activities been considered by your organisation for:   |
| (a) | 5 Minute Settlement   |
| (b) | Global Settlement   |
| Q2  | To what extent has the identified funding requirements been incorporated into funding cycles for:                       |
| (a) | 5 Minute Settlement   |
| (b) | Global Settlement   |

# Deliverable Timing Feedback

Greg Minney

# Indicative timelines

NOTE: Deliverable dates are currently draft/proposed dates

Item	Engagement Commences	Draft Paper Released	Final Paper Released
Market Readiness Strategy	Jun 19	30 Aug 19	29 Nov 19
Industry Test Strategy	Jul 19	30 Aug 19	31 Oct 19
Transition & Go-Live Strategy	Jul 19	30 Sep 19	31 Jan 20
Market Trial Strategy	Jul 19	29 Nov 19	28 Feb 20
Metering Service Provider Accreditation Update Plan	Oct 19	29 Nov 19	31 Mar 20
Industry Readiness Reporting Plan	Sept 19	29 Nov 19	31 Jan 20

# Deliverable Approach

- AEMO is considering feasibility of merging Industry Test and Market Trial Strategy deliverables into a single deliverable:
  - Supports overall view of all testing phases at strategy level
  - Integration of approaches with transition and Go Live Strategy
  - Test plan development confirms scope / approach for each phase
- AEMO is considering engagement in Accreditation Update approach in October (previously August)
  - Better aligns input to overall Transition Approach

**Question: Preferred approach and feedback from RWG Members regarding the Strategies?**

# Forward Meeting Plan

Greg Minney

# Upcoming RWG Meetings – Content and Discussion Items

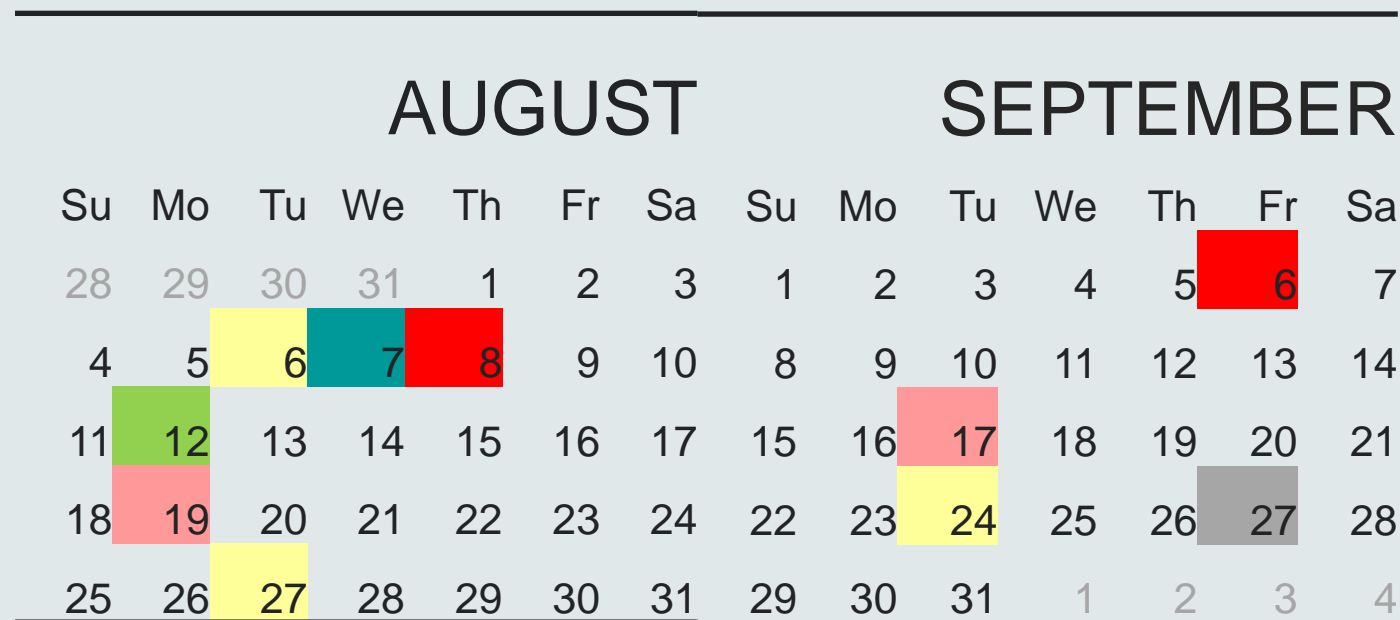
- Seeking feedback for proposed content/topic areas

Meeting Date	Meeting	Proposed Content
27 Aug	RWG #3	<ul style="list-style-type: none"><li>• Transition Approach</li><li>• Interim Readiness Reporting Analysis</li><li>• Market Readiness Strategy feedback</li></ul>
24 Sept	RWG #4	<ul style="list-style-type: none"><li>• Market Readiness Strategy Feedback</li><li>• Principles for Industry Readiness Reporting</li><li>• Initial Issues and Risks Workshop</li><li>• Test Strategy Feedback</li></ul>
28 October	RWG #5	<ul style="list-style-type: none"><li>• Transition Strategy Draft feedback</li><li>• Accreditation Update Approach</li></ul>

# Upcoming meetings

Meetings and forum dates:

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



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

Focus Groups
Dispatch
Metering
Settlements
Reconciliation
Other
Information Sessions

National Public Holiday
State Public Holiday

# General Questions

Greg Minney



# Vendor engagement

- Feedback at PCF from Industry regarding vendor engagement challenges
- AEMO is seeking feedback for options and areas that AEMO could consider a further vendor engagement – following vendor briefing in late 2018
- For example:
  - Technical Specification finalisation
  - Testing timeframes

Question: Are there views from RWG members regarding vendor engagement approach, areas of significance and need/timing for further vendor briefing session?

