

5MS/GS Transition Focus Group #8:

Wednesday 29th July, 2020

WebEx only [details in calendar invitation]

****Please disconnect from your workplace VPN for the WebEx call****

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

AEMO Competition Law Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions **must**:

1. Ensure that discussions are limited to the matters contemplated by the agenda for the discussion
2. Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO
3. Immediately and clearly raise an objection with AEMO or the Chair of the meeting if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

Participants in AEMO meetings **must not** discuss or agree on the following topics:

1. Which customers they will supply or market to
2. The price or other terms at which Participants will supply
3. Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
4. Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)
5. Refusing to supply a person or company access to any products, services or inputs they require

Under no circumstances must Participants share Competitively Sensitive Information. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

Agenda

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NO	TIME	AGENDA ITEM	RESPONSIBLE
1	10:00 - 10:10	Welcome and introduction	Greg Minney
2	10:10 – 10:20	Notes/actions from previous meeting	Greg Minney
3	10:20 – 10:30	5MS/GS delayed implementation	Emily Brodie
4	10:20 – 10:25	Update on metering procedure changes	Meghan Bibby
5	10:25 – 10:30	Update on Bidding Transition Plan	Emily Brodie
6	10:30 – 10:35	Readiness reporting	Austin Tan
7	10:35 – 11:50	MTP update workshop	Greg Minney Blaine Miner
BREAK 11:00- 11:10			
		MTP update workshop continued	Greg Minney Blaine Miner
8	11:50 – 12:00	Next steps and general questions	Greg Minney
	APPENDIX	Refresher on 5MS and GS metering and metering data obligations	

Introduction

Greg Minney



Session objective

Update the MTP to accommodate the 3-month delay to the 5MS and GS Rule commencement dates. The updated MTP will:

- Become the latest version for industry and AEMO reflecting revised rule commencement dates.
- Provide a basis for participants to evaluate impact to their project plans.
- Provide the baseline against which participants will report progress on their metering transition activities

Notes and actions from previous meeting

Greg Minney



Actions from TFG #7: 6 May 2020

(1/3)

Section	Action	Responsibility	Response
Actions from TFG #6	TFG to provide feedback on whether there were MP activities associated with the conversion of new/replacement type 4/4A/VIC AMI meters.	TFG	Four responses received. It was noted that: <ul style="list-style-type: none"> • These meters are not essential to 5MS • MDPs will engage with MPs as required and also set the rollout timeframes. • MDPs would also engage MPs to manually reconfigure if remote upgrades fail. • Therefore it is unnecessary to monitor MP rollouts separately in the MTP. Avoids creating further administrative burden.
	AEMO to add any identified MP activities for new/replacement type 4/4A/VIC AMI meters to the MTP.	AEMO	n/a (See action #1 above)
	AEMO to provide template for MP new/replacement type 4/4A/VIC AMI meters rollout plans	AEMO	n/a (See action #1 above)
	TFG to provide feedback on MP template for new/replacement type 4/4A/VIC AMI meters rollout plans	TFG	n/a (See action #1 above)
	AEMO to finalise template for MP new/replacement type 4/4A/VIC AMI meters rollout plans	AEMO	n/a (See action #1 above)
	TFG to provide feedback on existing NCONUML template	TFG	4 responses received. AEMO distributed updated template on 28 May.
	AEMO to send out updated template once feedback received. <ul style="list-style-type: none"> • Expected to include indicative NMI volumes vs specific NMI lists 	AEMO	Updated template attached for TFG feedback.
	AEMO to update MTP to include specific activities relating to participants providing AEMO with detailed NMIs lists at a future date i.e. algorithm approval process activities to be treated separately to provision of NMI lists.	AEMO	Complete. AEMO distributed updated MTP (v1.4) on 28 May

Actions from TFG #7: 6 May 2020

(2/3)

Section	Action	Responsibility	Response
CNDS clarification document	AEMO to issue an updated version of the document to reflect the changes in the MDM go-live dates	AEMO	Document has been updated but will only be published once the once new milestones have been agreed with PCF.
MDM reschedule impact on MTP	TFG to provide feedback on MTP activity date changes resulting from the MDM implementation date change	TFG	<p>Four responses received. Key theme was 5-min metering data delivery, both B2M and B2B, and transition start/end dates for associated MTP actions.</p> <p>AEMO notes that:</p> <ul style="list-style-type: none"> • B2M 5-min data delivery should be considered separately to B2B 5-min data delivery. • As discussed and agreed through the TFG and RWG, the MTP has a focus on wholesale meters being ready prior to go-live to ensure a smooth commencement. <p>For these reasons, AEMO doesn't consider that the suggested MTP changes relating to the MDM go-live change are necessary.</p>
	AEMO to ensure "RegisterID to Suffix alignment" activity is added for Type 7 and NCONUML installations	AEMO	Complete – see updated MTP (v1.4)

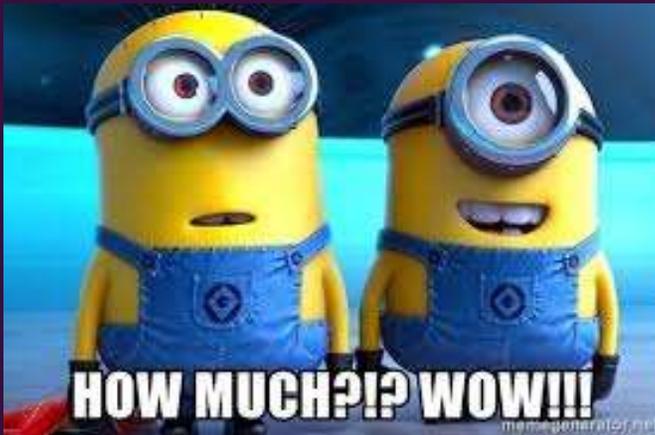
Actions from TFG #7: 6 May 2020

(3/3)

Section	Action	Responsibility	Response
MTP "12-month delay" scenario	<p>TFG to provide feedback on MTP proposed 12-month 5MS/GS delay scenario, including the minor edits proposed by TFG members during the meeting:</p> <ul style="list-style-type: none"> A52, A58, A64 and A70 for the Forward Plan to AEMO be moved back until after the date of FINAL determination from AEMC (say Sept-Oct 2020) should A98a "Provide AEMO with NCONUML NMI list" - be pushed back to closer to the MDM Go-live date given that previously it was to be provided only 1 week before the MDM Go Live date? 	TFG	<p>Five responses received. Key issues:</p> <ul style="list-style-type: none"> Similarly to MDM change scenario, concerns raised about transition end dates for B2B 5-min data delivery. AEMO note that as discussed and agreed through the TFG and RWG, the MTP has a focus on wholesale meters being ready and their data being sent to AEMO prior to go-live to ensure a smooth commencement. Propose to monitor rule change process and discuss with TFG when outcome known. Suggestion to change transition end date relating to matching suffix and register ID. AEMO notes that the end date relates to a procedure, not the proposed rule, and a procedure change is under consideration by the ERCF. Propose to monitor both proposed rule and procedure change processes and discuss with TFG when outcomes known. Suggestion to maintain start dates for activities relating to rollout plans. AEMO agrees and also proposes that regular rollout plan updates are incorporated into the MTP.

5MS/GS delayed implementation

Emily Brodie and Greg Minney



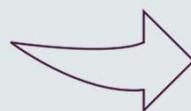
AEMC Deferral Decision

Activity	Original date	New date
Commencement of 5MS	1 July 2021	1 October 2021
Commencement of "soft start" GS	1 July 2021	1 October 2021
Commencement of financial settlement of GS	6 February 2022	1 May 2022
Compliance date for all new and replacement metering installations (other than excluded metering installations) to be configured to record and provide 5-minute data	1 December 2022	1 December 2022
AEMO required to publish UFE data report	1 July 2021	1 October 2021
AEMO required to publish UFE report on unaccounted for energy trends	1 March 2022	1 June 2022

Summary of Impact

- **AEMO 5MS Program:** will continue to progress with system development and deployments to meet the current milestones
 - Platform release of MDM, Settlements and 5-min Bidding into 5MS Staging Environment, AEMO pre-production environment and production will remain as scheduled
- **Procedures:** New effective dates are likely the only impact to those procedures already updated for 5MS/GS
 - Final determination indicates that AEMO can change the effective date of already-determined procedures (updated for 5MS and GS) without further consultation. Timeframes for updates to be discussed with the RWG.
- **Industry readiness activities** will change to accommodate the new rule commencement dates
 - PCF/RWG are discussing appropriate timing and duration of market trials
- Extension of the **5MS Staging Environment** is under consideration
- **Reallocations** update will be needed with new 5MS commencement date – plan will be communicated through RWG/SWG
- **Stakeholder engagement:**
 - RWG and SWG have been combined as system design and development largely complete
 - ITWG will be convened as needed – now more like a focus group
 - Working Groups will remain on a monthly basis until 5MS go-live with focus groups being used as needed
 - Working Groups/ Focus Groups used as needed up until GS go-live
 - 5MS mailbox will remain active until GS go-live

Summary: Impact on approach to transition



Phased implementation approach is maintained:

- Platform go-lives to deliver require capabilities
- 5MS and GS implementations aligned to Rule Commencement

Limited impact to Transition timeframes and windows:

- Shorter deferral has reduced the need for a "2 speed" transition
- Bidding transition period extends from 1 Apr to 1 Oct 2021
- Transition approach will continue to support commencement of transition activities as early as possible (subject to appropriate counter party agreements)

Metering Transition:

- Plan to be revised to take into consideration new Rule Commencement requirements
- Participants plans may need to be revised, with progress reported against new timings
- Participant accreditation timings to be reviewed

Summary: Impact on market trials and readiness reporting



Industry Testing and Market Trials:

- Market Trials realigned with revised Rule Commencement dates
- Staging environment to be utilized for participant testing of all releases, in mode agreed with Industry
- Industry tests for platform deployments as per current strategy



Readiness reporting:

- Participant special survey issued to provide the Executive Forum a consolidated view of participant impacts associated to the Rule Change request process and outcome
- Cadence of planned Readiness Reporting to be maintained
- Participants expected to report against their updated plans i.e. reflective of the revised Rule Commencements

Metering procedures update

Meghan Bibby



5MS/GS-related procedure change log

Procedure issue	Status
MDFF file size and transaction limit in file	Procedure has been finalised: <ul style="list-style-type: none"> • MDFF file size 10MB • MDFF 1,000 transaction limit in file • non-contestable unmetered loads – use of existing B2B transactions for this family of NMI
Proposed procedural change to MDFF quality flag (N flag)	AEMO submitted an ICF for ERCF consideration at March meeting. AEMO to compiled a ‘change information pack’, presented at the 15 May ERCF. ERCF and AEMO decided to take to consultation. Consultation commences early August, anticipated to be concluded early December.
Proposal for RWD[?]	Part of MSATS Standing Data Review. Second draft determination was published 3 Jul 20. Submissions period closes Mon 27 Jul. Final report is due to be published Mon 7 Sep.
Removal of end user details from inventory table	Consultation commences early August, anticipated to be concluded early December.
TNI 2 for cross-boundary meters	Part of MSATS Standing Data Review. Second draft determination was published 3 Jul 20. Submissions period closes Mon 27 Jul. Final report is due to be published Mon 7 Sep.
Obligation for MC to provide updated or substitution data in the cases of theft or fraud	Original ICF lodged by AGL. Relates to UFE calculation. Discussed at ERCF May meeting. On hold pending compliance discussions. New ICF would need to be lodged to reinstate procedure change process.
Removal of register ID = suffix requirement	ICF lodged by AusNet discussed at ERCF May meeting. Consultation commences early August and is anticipated to conclude early December.

Metering procedures update

Electricity Retail Consultative Forum - next meeting Tue 11 Aug 20

- <https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/Electricity-Retail-Consultative-Forum>

B2B Working Group – recent meeting Thu 6 Aug 20

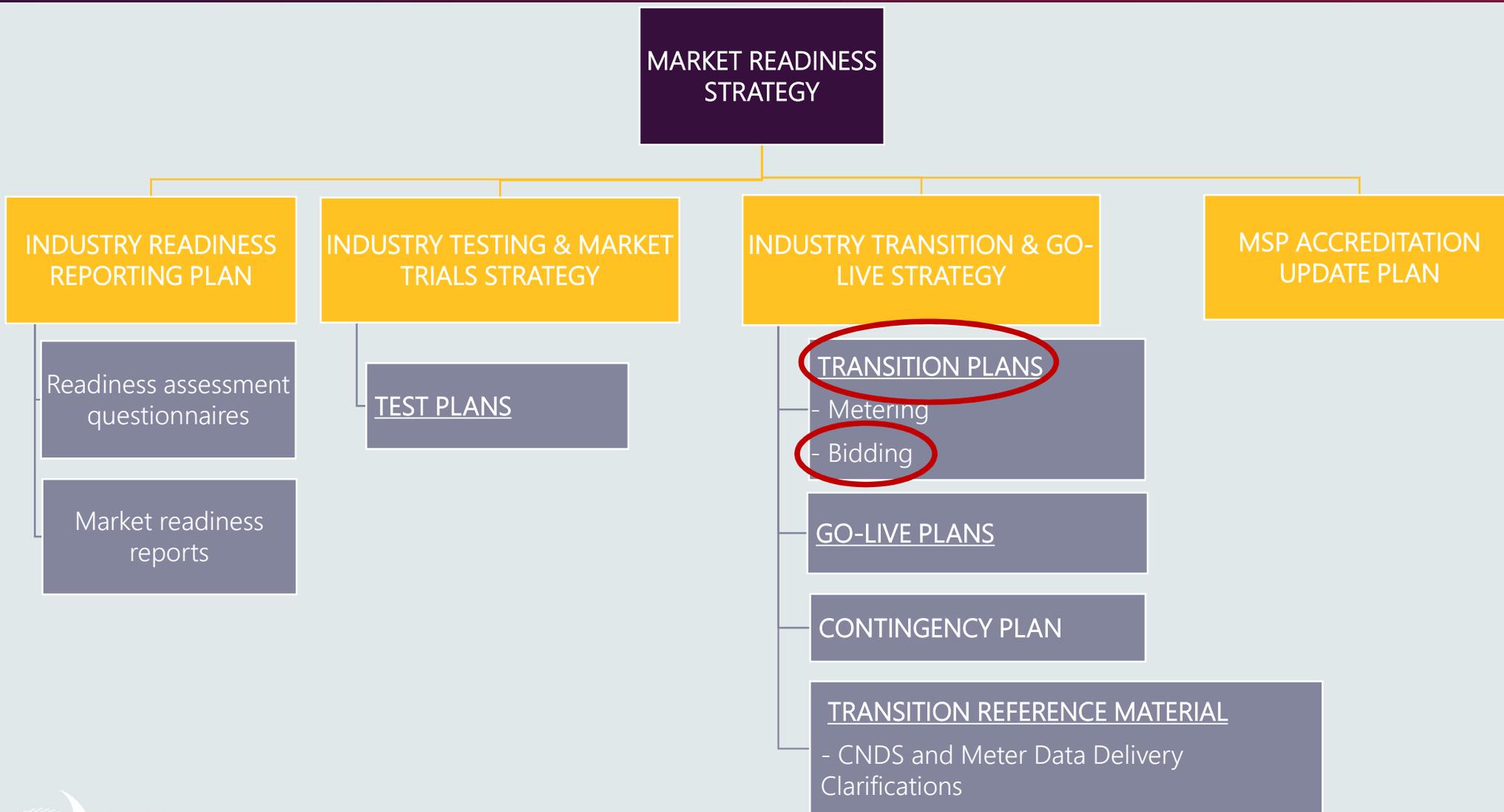
- <https://aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Retail-meetings/B2B-Working-Group>

Update on Bidding Transition Plan

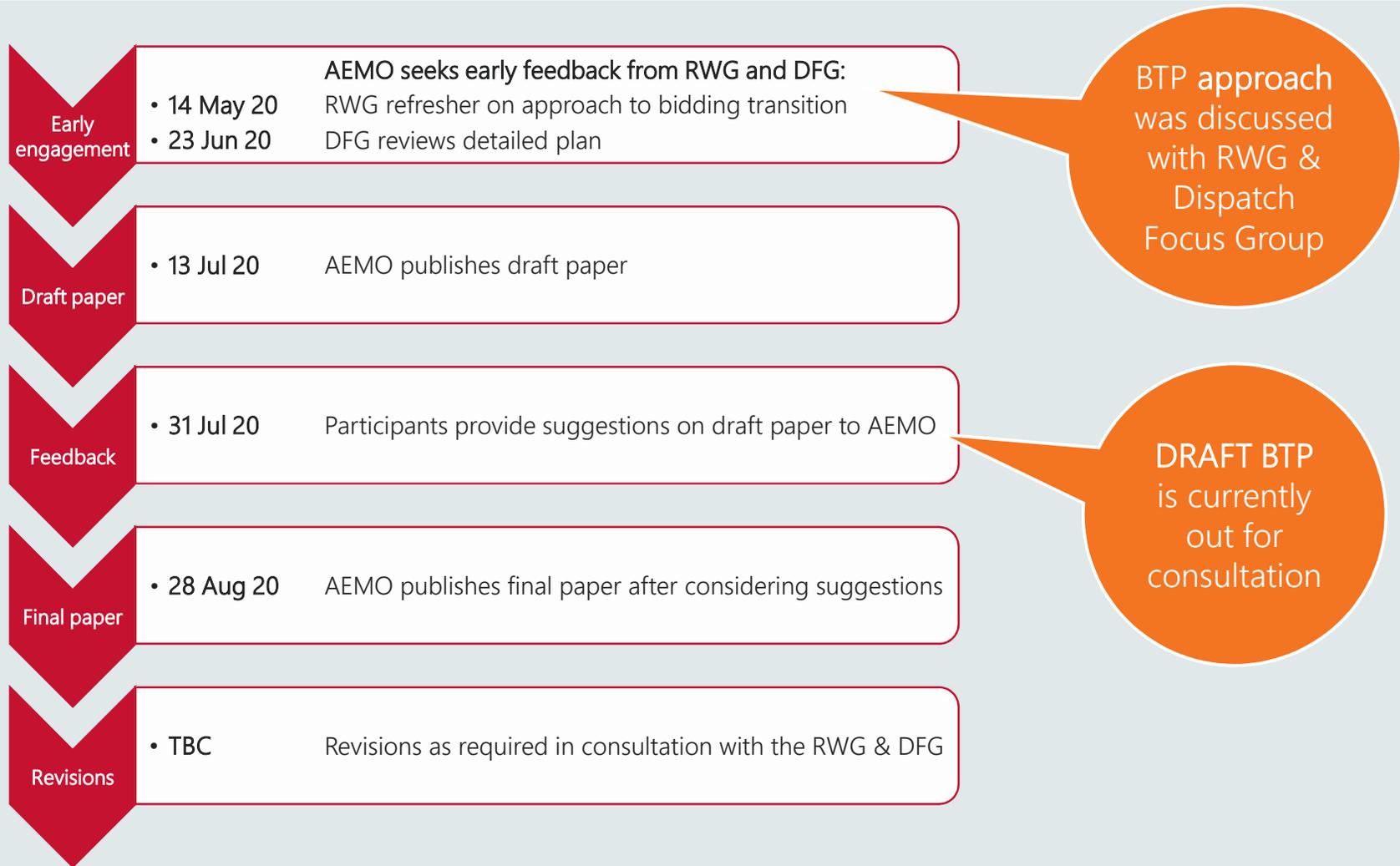
Emily Brodie



Context: Bidding transition plan



BTP consultation approach



Impact of 3-month delay to BTP

- The 3-month 5MS delay:
 - Has no impact on the deployment timeframes of AEMO's 5MS bidding system changes:
 - Some bidding capability is already in the staging environment
 - Deployment into pre-production is on track for 29-Nov-20
 - Deployment into production on track for 01-Apr-21.
 - From 01-Apr-21, 5-min capability will be available alongside 30-min capability until 5MS commencement.
 - Provides the option of extending the 5-min bidding transition period
- DFG agreed that a longer 5-minute bidding transition period is acceptable and it could be extended by 3-months (the duration of the 5MS commencement deferral).

Bidding transition

STAGING ENVIRONMENT

- 29 Nov 2019
- ✓ P1: Bidding FTP & API
- ✓ P2: Bidding Web UI
- ✓ P3: Dispatch, Pre-dispatch and PASA
- 15 May 2020
- ✓ P4: Pricing & Miscellaneous

PRE-PRODUCTION

- 29 Nov 2020
- 5-min Bidding (all packages)

PRODUCTION GO-LIVE

- 1 Apr 2021
- 5-min Bidding (all packages)

5MS START

- From 1 Oct 2021
- Only 5-min bids in JSON format

PREPARATION for 5-minute bidding

- AEMO to ensure valid 5-min bids before the start of the transition period

TRANSITION: 1 Apr 2021 to 30 Sep 2021

- Submit 5-min or 30-min bids
- 5-min bids must be in JSON format
- Each 5-min bid within each half hour must be identical, giving the same effect as the submission of a 30-min bid

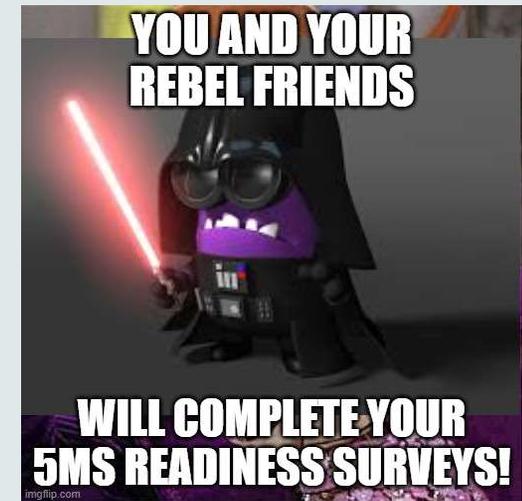
Readiness reporting

Austin Tan



Readiness Reporting

- Readiness reporting will resume on Tuesday 11 August, with participants now considering their progress against the new Rule Commencement dates.
- The frequency of reporting will be every two months.
- An updated reporting timeline for 2020 is provided below:
- Reporting timeline for 2021 will be discussed at the RWG on 16 November 2020



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	12-Mar-20
Round #2	14-Apr-20	23-Apr-20	07-May-20	14-May-20	02-Jun-20	TBC
Special survey	10-Jul-20	17-Jul-20	24-Jul-20	24-Jul-20	24-Jul-20	30-Jul-20
Round #3	11-Aug-20	20-Aug-20	03-Sep-20	14-Sep-20	01-Oct-20	TBC
Round #4	06-Oct-20	15-Oct-20	29-Oct-20	16-Nov-20	01-Dec-20	TBC
Round #5	17-Nov-20	26-Nov-20	10-Dec-20	14-Dec-20	TBC	TBC

Essential capabilities for 5MS and GS commencements

- In future readiness reports, AEMO will be providing additional analysis on essential industry capabilities that are on the critical path for minimum viable 5MS and GS operations. This analysis is intended to highlight if the industry is 'on track' against rule commencement and ties directly to the Industry Contingency Plan.
- Participant responses to the readiness surveys are key as inputs, including reporting on the status of relevant MTP activities. Outputs from this reporting will also help to identify whether contingency responses need to be triggered.

Essential capability	Relevant participants	Critical Path Criteria
Generators and MNSPs are able to submit 5-min offers (i.e. over FTP, API or web bidding interface)	Generators, MNSPs	a) Generators representing >80% of regional load are responding to Industry Readiness Surveys, and; b) Generators representing >80% of regional load are reporting 'On-track' to be able to submit 5-minute granularity offers
All essential meters* are able to produce and store 5-min data	MPs	a) 100% of MPs associated to essential metering are responding to Industry Readiness Surveys, and; b) 100% of MPs associated to essential metering are reporting 'On-track' for all applicable MTP activities (S01)
All essential meters* are able to produce and store 5-min data	MCs	a) 100% of MCs associated to essential metering are responding to Industry Readiness Surveys, and; b) 100% of MCs associated to essential metering are reporting 'On-track' for all applicable MTP activities (S01)
All essential meters* are able to deliver 5-min metering data	MDPs	a) 100% of MCs associated to essential metering are responding to Industry Readiness Surveys, and; b) 100% of MCs associated to essential metering are reporting 'On-track' for all applicable MTP activities (S01)
The 5-minute bidding and dispatch solution, including the web bidding interface is deployed	AEMO	a) AEMO reporting 'On-track' for all Bidding/Dispatch reporting criteria and milestones
The Metering Data Management (MDM) solution is deployed	AEMO	a) AEMO reporting 'On-track' for all MDM Milestones
The 5-minute settlements solution is deployed	AEMO	a) AEMO reporting 'On-track' for all Settlement Milestones

*Essential meters are defined in the Industry Contingency Plan as 'Transmission connected types 1-4 meters', and 'Distribution to distribution cross-boundary types 1-4 meters'

MTP update workshop

Greg Minney and Blaine Miner



MTP Update: Key considerations

- **AEMC Rule Deferral dates:**
 - 5MS/UFE Publication – 1 Oct 2021
 - Transition of New and replacement meters – 1 Dec 2022
 - GS Financial start – 1 May 2022
- **AEMO functional releases to Production:**
 - Retail/MDM – 9 Mar 2021
 - 5 and 15min metering data delivery via B2M – 1 Apr 2021
 - Settlements and Dispatch/Bidding – 1 Apr 2021
- **Changes to Transition window options:**
 - Defer by 3mths
 - Extend transition windows e.g. no deferral
 - Other
- **Dependencies**
 - Impacted Participant readiness to process transactions
 - Technical e.g. reliance on new schema/configuration/fields
 - Effective dates for procedures as end state assumed in MTP
- **More broadly, implications on:**
 - CR notification volume management
 - Participant compliance
 - Transition risk



Next steps and general questions

Greg Minney

Reflection on session objective

Update the MTP to accommodate the 3-month delay to the 5MS and GS Rule commencement dates. The updated MTP will:

- Become the latest version for industry and AEMO given the revised rule commencement dates.
- Provide a basis for participants to evaluate impact to their project plans.
- Provide the baseline against which participants will report progress on their metering transition activities

Next steps

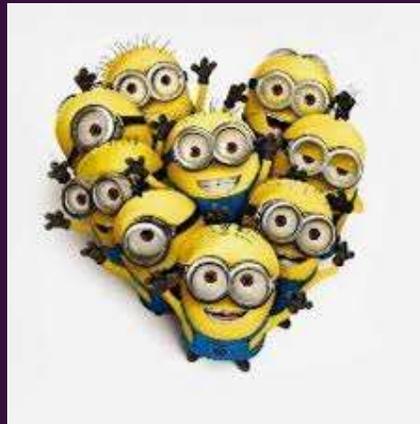


- Continued implementation of MTP
- TFG to provide feedback on MTP updates to 5ms@aemo.com.au by Wed, 5 Aug 2020
- RWG review 13 Aug 2020
- Other?

General questions



Thank you for your
attendance and participation!



APPENDIX:

Refresher on 5MS and GS metering and metering data obligations

5MS Metering installation requirements

Metering Type	Requirement	Date
Types 1, 2, 3 and 7	<ul style="list-style-type: none"> Must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data. 	By 1 July 2021 By 1 Oct 2021
Subset of Type 4*	<ul style="list-style-type: none"> Must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data. 	By 1 July 2021 By 1 Oct 2021
Types 4, 4A and 5	<ul style="list-style-type: none"> All new or replacement metering installations (other than type 4A metering installations) installed from 1 December 2018 must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data. All new or replacement type 4A metering installations installed from 1 December 2019 must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data. 	By 1 Dec 2022 (no date change)

Note:

AEMO may grant an exemption where 1 type 1, 2, 3 or subset of type 4 meter is not quite capable of storing 35 days of metering data (i.e. 30-34 days) if it is reasonably satisfied that the Metering Provider will be able to otherwise satisfy the requirements of Chapter 7.

* Subset type 4 meters definition:

- Type 4 metering installations at a:
 - Transmission network connection point; or
 - Distribution network connection point where the relevant financially responsible Market Participant is a Market Generator or Small Generation Aggregator

5MS/GS metering data delivery to AEMO

Topic	Requirement	Date
File Format	<ul style="list-style-type: none">MDFF NEM12 files to be the required file format<ul style="list-style-type: none">For all interval metering data being delivered to AEMOMDFF NEM13 files to be supported by AEMOMDMF files for basic meter reads will continue to be supported and accepted	From 1 July 2021 From 1 Oct 2021
Granularity	<ul style="list-style-type: none">NEM12 interval metering data to be:<ul style="list-style-type: none">Delivered at the register level (E, B, Q and K)<ul style="list-style-type: none">NEM12 200 records must be accurateAs per the meter's trading interval configuration i.e. 5, 15 or 30-minute intervals	From 1 July 2021 From 1 Oct 2021
Energy	<ul style="list-style-type: none">Metering data which must be sent to AEMO:<ul style="list-style-type: none">Import and Export Active energy (kWh) (E and B)Import and Export Reactive energy (kVarh) (Q and K), where applicableAll other forms of measurement (such as volts and amps) are not required to be delivered to AEMO but will be processed if they are provided.	From 1 July 2021 From 1 Oct 2021

5MS/GS: MSATS datastream standing data

Metering Type	Requirement	Date
Types 1, 2, 3 and 7	<ul style="list-style-type: none"> Net datastreams (N1) must be converted to Register level datastreams (E1, B1, etc.) 	By 1 July 2021 By 1 Oct 2021
Subset of Type 4*	<ul style="list-style-type: none"> Net datastreams (N1) must be converted to Register level datastreams (E1, B1, etc.) 	By 1 July 2021 By 1 Oct 2021
Types 4, 4A and 5	<ul style="list-style-type: none"> All new records relating to interval meters must be created at the register level e.g. E and B. Existing net datastream records can remain active post 1 July 2021, until an update to the datastream record is required e.g. meter replacement. Where an update is required to a CNDS record, the net datastream record is to be inactivated and any new active datastreams records are to be created at the register level. Datastreams associated with import and export reactive energy e.g. Q and K must be created in the CNDS table if they exist in the CRI table. <ul style="list-style-type: none"> Datastreams must be established in a manner that ensures they are not included in market settlements. 	From 1 July 2021 From 1 Oct 2021
Basic Meters	<ul style="list-style-type: none"> All 1st tier datastreams must be activated and meter reads delivered to AEMO, for UFE purposes 	By 1 July 2021 By 1 Oct 2021

5MS/GS: MSATS standing data - general

By 1 ~~July~~ October 2021

- Non-contestable unmetered load (NCONUML) NMIs and associated standing data created in MSATS
- NMI Classification Code updates, for affected existing NMIs, to reflect the new code requirements

NMI Classification Code	Description
BULK	<i>Connection point where a transmission network connects to a distribution network - also termed 'Bulk Supply Point'</i>
DWHOLSAL	<i>Distribution network connection point where energy is directly purchased from the spot market by a Market Customer</i>
NCONUML	<i>Non-contestable unmetered load</i>
NREG	<i>Connection point associated with a non-registered embedded generator, i.e. a generating unit that is not classified by a Market Generator, but may be classified by a Small Generation Aggregator as a market generating unit.</i>
WHOLESALE	<i>Transmission network connection point where energy is directly purchased from the spot market by a Market Customer</i>
XBOUNDRY	<i>Connection point where a distribution network connects to another to distribution network</i>

