

5MS Procedures Working Group #5

Monday, 19 November 2018

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

DIAL IN: [02-9037-0069](tel:02-9037-0069)

Meeting number (access code): 573 704 308

Agenda

NO	TIME	AGENDA ITEM	RESPONSIBLE
Preliminary Matters			
1	10:00am – 10:10am	Welcome, introduction and apologies	Emily Brodie (AEMO)
2	10:10am – 10:20am	Minutes and actions from previous meeting	Emily Brodie (AEMO)
Matters for Noting			
3	10:20am – 10:30am	Procedures workstream update	Emily Brodie (AEMO)
Matters for Discussion			
4	10:30am – 11:00am	Debrief on joint metering/systems focus group	David Ripper (AEMO)
	11:00am – 11:15am	BREAK	
5	11:15am – 11:35am	Metering package 2 - Introduction	David Ripper (AEMO)
6	11:35am – 12:00pm	Debrief on joint dispatch/systems focus group	Michael Sanders (AEMO)
Other business			
7	12:00pm – 12:05pm	Forward meeting plan	Emily Brodie (AEMO)
8	12:05pm – 12:30pm	General questions	Emily Brodie (AEMO)

Minutes and actions from previous meeting

Emily Brodie

Responses to PWG actions (1)

	Topic	Action	Response
1.6.2	Packaging and Prioritising Procedures	AEMO to discuss with PWG whether there is a need to adjust the timing of the reallocation procedure package	AEMO is still considering timing, we will release timing in December
1.8.8	Metering procedures	The metering focus group and the SWG are to investigate whether there are data volume delivery constraints because of 5MS or global settlements with the current delivery timeframes. PCF and PWG to be informed of progress.	Ongoing Under discussion with industry through metering focus group and SEG. PCF and PWG of developments.
3.3.1	5MS Drafting Amendments	PWG to provide input on the potential 5MS drafting amendments around a bidding data soft cutover, and other areas of the 5MS rule.	Action still open, accepting input until end of 2018
4.1.1	Transitional Arrangements	AEMO to update PWG on interactions between dispatch and metering transitional arrangements	AEMO will communicate its high level transition plan across metering, settlements and dispatch at the December PCF, PWG and SWG meetings
4.2.1	PWG scheduling	AEMO to confirm new date of PWG 5	Complete
4.3.1	Settlements Procedures - Miscellaneous	PWG to provide feedback on proposed changes to the Settlement Guide to Ancillary Services Payment and Recovery, and AEMO's proposed consultation approach.	No feedback received

Responses to PWG actions (2)

	Topic	Action	Response
4.3.2	Settlements Procedures - Miscellaneous	PWG to provide feedback on proposed changes to settlement guides and overview documents, and AEMO's proposed consultation approach.	No feedback received
4.3.3	Transitional Arrangements	AEMO to advise PWG on existing forums that could be used for discussions relating to transitional arrangements for settlements.	Settlement Managers Working Group convenes once a year. Consider that bespoke 5MS settlement focus group better placed to address transitional issues, drawing on expertise/experience from settlements and IT experts across industry.
4.3.4	Transitional Arrangements	PWG to provide feedback if a separate focus group to discuss settlements transitional arrangements will be beneficial and what suitable timing would be.	Two responses received supportive of holding a settlements focus group. One of these responses suggested an initial meeting in November, followed by another in December after the final GS rule is published

Responses to PWG actions (3)

	Topic	Action	Response
4.3.5	Settlements Procedures - Miscellaneous	PWG to provide feedback on proposed changes to the NEM Settlements Revision Policy, and AEMO's proposed consultation approach.	No feedback received, will explore further in Settlements Focus Group
4.4.1	Dispatch Procedures – Spot Market procedures	PWG to provide feedback on proposed changes to the dispatch package of spot market procedures, and AEMO's proposed consultation approach.	One response received supportive of AEMO's proposed approach.
4.6.1	Settlements Procedures - Miscellaneous	PWG to provide feedback from participants if a Settlements Working Group will be required to discuss potential 5MS and Global Settlement issues.	See 4.3.4 above
4.5.1	Metering Procedures	Local Retailers and Distributors to provide information about off-market unmetered loads.	Ongoing, accepting input until end of 2018

Procedures workstream update

Emily Brodie

Procedures workstream status

5 MINUTE SETTLEMENT PROCEDURES TRACKING	TIMING					CONTENT
	HLIA	PWG Engagement	Consultation paper	Draft documents	Final documents	Package content
METERING						
1. Metering - Metering Data & Metrology	Jul-18	Jul-18	Sep-18	Jan-19	Mar-19	
2. Metering - MSATS and SLPs	Jul-18	Nov-18/Jan-19	Feb-19	May-19	Aug-19	
3. Metering - Miscellaneous*	Jul-18	Feb-19	Mar 19*	n/a	Jul-19	
SETTLEMENTS						
SRA	Jun-18	Jul-18	n/a	Jul-18	Aug-18	
TNSP	Mar-19	Apr-19	Jun-19	Aug-19	Oct-19	
Estimation	Aug-18	Aug-18	Nov-18	Jan-19	Mar-19	
Reallocations	Dec-18	Mar-19	Apr-19	Jun-19	Aug-19	
Miscellaneous	Oct-18	Oct-18	Dec-18	Mar-19	Jun-19	
Prudentials	Aug-18	Sep-18	Nov-18	Jan-19	Mar-19	
DISPATCH						
1. Dispatch - Bids/Offers*	Jul-18	Jul 18 ongoing	n/a	n/a	Jan-19	
2. Dispatch - Spot market	Sep-18	Oct 18 ongoing	Jan-19	Apr-19	Jul-19	
3. Dispatch - Pricing	Aug-18	Aug 18 ongoing	Aug-18	Dec-18	Jul-19	
4. Dispatch - Specifications*	Jan-19	Feb-19	n/a	n/a	Jun-19	
5. Dispatch - Miscellaneous*	Jan-19	Feb-19	n/a	n/a	Jun-19	
POWER SYSTEM OPS						
1. Operations - Miscellaneous*	TBA	Apr 19 ongoing	n/a	n/a	Jul-19	
*no rules consultation required	TIMING			CONTENT		
	Started and on track			No issues		
	Started late			Issues		
	Overdue			Severe issues		

Procedures workstream meetings

- Focus groups:
 - **Settlement:** Monday 26th November, Melbourne. Transition to 5MS. Likely further meeting in new year to cover issues relating to final global settlement rule.
 - **Dispatch:** Tuesday 27th November, Melbourne. Bidding web user interfaces.
- Next PWG scheduled for Thursday 13th December:
 - **Settlement** – debrief on focus group (Monday 26th November)
 - **Dispatch** - debrief on focus group (Tuesday 27th November)

Consultations

AEMO: 5MS Metering package 1

- First stage of consultation on the proposed amendments to various metering procedures to support the implementation of 5MS
- <http://aemo.com.au/Stakeholder-Consultation>
- First stage submissions due 28 December 2018
- Final report will be published 22 March 2019

AEMO: 5MS Settlements package - Estimations

- Consultation commences 26 November 2018, submissions due 21 January 2019

AEMO: 5MS Settlements package - Revisions

- Consultation on track, but pushed back by one week to allow adequate time to incorporate feedback from Settlement Focus Group
- Consultation commences 14 December 2018, submissions due 22 February 2019

Consultations

AEMO: 5MS Settlements package - Reallocations

- Engagement with industry to begin at the Settlements Focus Group on 26 November. Consultation to commence early 2019.

AEMO: 5MS Settlements package - Prudentials

- Consultation of the CLP is delayed to early 2019, to commence after the reallocations package consultations. This is to allow for changes to the reallocations package be reflected in the CLP.

AEMO: 5MS Settlements package - Miscellaneous Procedures and Guides

- This is a package of five documents not subject to the NEM rules consultation process
- 5MS related changes are administrative only. Non-5MS amendments are in plan to update the content to current practice
- Documents will go out for comment March 2019 and will be finalised April 2019.

Debrief on metering focus group

David Ripper

Topics Discussed at the workshop

- AEMO's program for transitioning to 5-minute meter data
- Metering Package #1 Consultation Topics
 - Profiling methods for converting 15 and 30-minute reads to 5-minute resolution
 - Non-controlled loads
 - Controlled sample meters
 - Alignment to B2B processes
 - Register level meter data
 - Non-energy meter data
- File size and communications capability
- Potential removal of various RM reports

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Transition to one meter data file format	<p>1 November 2020 AEMO begins to accept MDFF files.</p> <p>1 November 2020 to 30 June 2021 5 and 15 minute reads received by AEMO will be aggregated by AEMO to 30 minutes to support 30 minute settlements.</p> <p>1 July 2021 AEMO will profile received 15 and 30 minute reads to 5 minute resolution for settlement.</p> <p>1 July 2022 AEMO will stop accepting new MDMF interval reads. AEMO will continue to accept MDMF basic meter reads.</p>	<p>Potential value in having a 6mth transition window, for MDFF interval reads, between 1 July 2021 and 31 Dec 2021.</p> <p>Origin suggested that they will be requiring MDPs to not send 5min meter reads until commencement date, resulting in MDPs having to aggregate the reads until 1 July 2021.</p>	<p>Participants to provide additional information regarding issues associated to transitioning to MDFF for Basic meter reads.</p> <p>Participants to provide disadvantages and advantages on having a 'soft start' commencement date.</p> <p>AEMO and participants to consider what scenarios would lead to the decommissioning of MDMF e.g. what level of interval meter penetration would need to occur.</p>	<p>Actions to be completed and shared.</p>	<p>Agreement that transitioning to MDFF for interval meter data makes sense.</p> <p>Ongoing sentiment that moving to MDFF for Basic meter reads added no value and should not be pursued.</p>

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Profiling	<p>Five-minute load profile = \sum Wholesale Boundary five-minute metered energy - \sum Non-Wholesale Boundary five-minute metered energy (including contestable Type 7 metering installations) - \sum Controlled Load five-minute energy</p> <p>NSLP = Five-minute Load Profile - \sum Five-minute representation of 15-minute metering data - \sum Five-minute representation of 30-minute metering data</p>	<p>Proposed method may be most appropriate from commencement date but its 'accuracy' is still of concern.</p> <p>Alternative Residential and Business method may become more viable in certain jurisdictions sooner than others e.g. VIC vs QLD, due to previous interval meter roll-out.</p> <p>Uncertainty regarding the critic mass required to support alternative methodology.</p>	<p>Participants to provide additional feedback regarding what triggers should be established to consider alternative profiling methodologies, for non-controlled meters post commencement date.</p>	<p>Action to be completed and shared.</p>	<p>Proposed '5-minute Load Profile' methodology appropriate, for non-controlled meters, for 1 July 2021 start date.</p> <p>Simple apportionment methodology supported for controlled load sample meters.</p>

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Register level meter data	MDP to raise MSATS Change Requests to change Net to Register level data streams in CNDS or provide required data to AEMO to update CNDS via Bulk Change Tool.	<p>Origin suggested that the CNDS and CRI tables should be combined and that the MDP should be responsible for its data integrity.</p> <p>MDPs would publish all NMIs contained in MDFFs at the register level and would include both market and off-market NMIs.</p> <p>Alternative option raised to continue with Net data streams and to instead use the MDFF to determine register level details.</p>	<p>Participants to consider what would be involved in consolidating the CNDS and CRI information into 1 table.</p> <p>AEMO to consider alternative option of using the MDFF to determine register level data streams.</p>	Actions to be completed and shared.	Still pending

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
File size and comms capabilities	Objective: Increase maximum file (.xml) / message size to 10MB (both B2B & B2M)	<p>AGL mentioned that 10MBs seemed doable but that further analysis was required regarding the processing timings of the content.</p> <p>AGL mentioned that any volume testing of the increased file sizes needs to be balanced with BAU requirements i.e. don't do the volume testing in such a way that negatively impacts BAU activities.</p>	The results of the analysis will influence the ultimate approach and size of the file sizes and communications capabilities	<p>AEMO to: perform end-to-end internal tests to validate and deep-dive into the technical options, share test results/findings with the Focus Groups and work with participants to identify their constraints.</p> <p>Final recommendation: ~April 2019</p> <p>Participant final confirmation expected during participant testing in AEMO's Sandbox and Industry testing environments - ~November 2020</p>	Still pending

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Potential removal of various RM reports	Removal of various unused RM reports	<p>Question asked regarding the impact to AEMO of not retiring these reports.</p> <p>AEMO's response was that removing any unused and/or unwanted reports is typical best practice.</p>	Participants to raise any issues in retiring the specified RM reports.	Action to be completed and shared.	Still pending

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
General business		<p>Participants' understanding of AEMO's proposed B2B basic meter read responses varied.</p> <p>If AEMO error codes were not to be governed by B2B Procedures then where would they be published?</p> <p>If AEMO started to receive register level standing and meter data does it plan of performing any additional industry wide validations?</p> <p>Question regarding cross-overs with NMI Standing Data and DER programs.</p>	<p>AEMO to consider how and where error codes would be published.</p> <p>AEMO to provide specifics regarding the content of the proposed error codes.</p> <p>AEMO to provide clarification regarding how the 5MS program and other initiatives are being kept in sync.</p>	Actions to be completed and shared.	Still pending

Metering package 2 - Introduction

David Ripper

Metering Package 2

- Procedures included:
 - MSATS Procedures:
 - Metering Data Management (MDM) Procedures
 - MDM File Format and Load Process
 - National Metering Identifier
 - CATS Procedures Principles and Obligations
 - Procedures for the Management of WIGS NMIS
 - Metrology Procedure Part A
 - Metrology Procedure Part B
 - Exemption Procedure - Metering Provider Data Storage Requirements
 - Service Level Procedure: Metering Data Provider Services
 - Service Level Procedure: Metering Provider Services
 - Retail Electricity Market Glossary and Framework

Metering Package 2

- Discussion of how the 5-minute Settlement Rule and the Global Settlement Rule are expected to impact the Metering Package 2 procedures

Consultation	Indicative Date
PWG meeting – discuss high level impact assessments	January 2019
Consultation paper	February 2019
Draft procedures and determination	May 2019
Final procedures and determination	August 2019

Debrief on dispatch focus group

Michael Sanders

Topics discussed at the workshop

- Extending and expanding 5-minute pre-dispatch
- Use of 5-minute data in 30-minute processes
- Transition to 5 minute bidding
- Participants plans to transition
- Dispatch instruction timing
- “Zero” fixed load

- Other Notes:
 - Aligning electricity day with gas trading day or calendar day – would require a rule change and to be driven by participants

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
5-minute pre-dispatch extension	<p>The current 1 hour, 5-mn Pre-dispatch schedule could be extended but needs to continue to be published every 5 minutes.</p> <p>AEMO can investigate the possibility of additional 5-min Pre-dispatch schedules based on participants' feedback and preference.</p>	<p>Planning data has diminishing value as time extends out. Participants would like accurate data more often. For example period by period solution.</p> <p>For resource planning a longer look ahead is required. Price sensitivities are critical, esp. in the first hour.</p> <p>FSIP and daily energy constraints should be included in P5.</p> <p>P5 does include intervention.</p>	<p>AEMO to investigate P5 period-by-period options.</p> <p>AEMO to investigate removing the prohibition on using FSIP in pre-dispatch calculations through a rules amendment.</p> <p>AEMO to investigate inclusion of FSIP and daily energy constraints in 5-minute pre-dispatch calculation.</p>	Actions completed and results shared	Pending

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
5-minute data in 30-minute processes	<p>STPASA Use the 5-minute bid that has the lowest availability within each 30-minute period. This is consistent with identifying any shortfalls in supply.</p> <p>30-minute pre-dispatch Use the last (6th) 5-minute bid in each 30-minute period</p>	<p>STPASA AEMO operations is investigating the operational implications</p> <p>Participants raised an average availability over the 30-minute period may be more accurate.</p> <p>Participants felt a 5-minute resolution ST PASA may be more beneficial. AEMO's view is that a case for 5-minute resolution ST PASA has yet to be established. AEMO will continue with 30-minute resolution ST PASA as required by the NER.</p>	AEMO operations is investigating the operational implications	Actions completed and results shared	Pending

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
5-minute data in 30-minute processes	30-minute pre-dispatch Use the last (6 th) 5-minute bid in each 30-minute period	<p>Participants expressed concerns that using the last 5-minute bid would invite gaming.</p> <p>AEMO believes gaming is adequately mitigated by the bidding in good faith rules, and an extension to P5.</p> <p>Participants felt 30-minute pre-dispatch could be replaced by P5.</p> <p>There are doubts on the feasibility of extending P5 to PD timeframes.</p>	AEMO to investigate P5 options.	Actions completed and results shared	Pending

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Transition to 5-minute bidding	<p>Accept 5-mn bids from 1 April 2021, 3 months before commencement</p> <p>From 1 April 2021: existing 30-mn bids for trading days have been converted to 5-mn bids by AEMO; any received 30-mn bids are converted to 5-mn bids by AEMO's systems; dispatch, pre-dispatch, PASA, etc. will run off 5-mn data.</p>	<p>The approach was accepted by participants.</p> <p>Participants supported staggered release timing, i.e. PASA, pre-dispatch, then dispatch</p> <p>As soon as the release completes AEMO will start accepting 5-minute bids.</p>	AEMO to provide a release approach.	Document transition plan	Approach acceptable to participants

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
30-minute bids after commencement	Reject 30-min bids for Trading Days after commencement from 00:00 hrs 1 July 2021.	<p>Participants would prefer to continue conversion beyond commencement, noting that some small participants may not be ready for 5-minute bidding by commencement.</p> <p>AEMO's view is that the 5MS Rule requires participants to submit 5-minute bids from commencement.</p>	AEMO to monitor participant bidding as part of readiness for 5MS.	Action during readiness phase	Re-assess during readiness

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Submission of bids	<p>Bids submitted will transition from TXT format to JSON</p> <p>Bids will be able to be submitted via: web UI, web upload, FTP, APIs</p>	<p>Participants asked if an API simulator environment provided to participants was possible.</p> <p>AEMO will provide the API Swagger files. From this participants can mimic the API's.</p> <p>Participants indicated the priority for the Sandbox was:</p> <ol style="list-style-type: none"> 1. Web API interface – as this presents new technology/interfaces 2. FTP interface 3. Bidding data model 4. Settlement data model – SETGENDATA report/table was also raised 	<p>AEMO to provide Sandbox timeline</p> <p>AEMO to provide API Swagger files</p>	<p>Action in early 2019</p> <p>Action during development phase</p>	<p>Approach accepted</p>

Topic Outcomes

Topic	AEMO Proposal	Discussion	Outstanding Issues	Next Steps	Outcome
Participants' transition plans	Pre-production by Nov 2020 Production by 1 Apr 2021 Commencement 1 Jul 2021	<p>Participants noted a need for file and API specifications</p> <p>Participants repeated the importance of an early sandbox environment</p> <p>For the Sandbox real pricing and metering data would be preferable but not essential</p> <p>Pricing in the sandbox will be based on submitted offers and other data inputs to pricing may be static (such as constraints).</p>	<p>AEMO to provide API specifications in line with SWG schedule</p> <p>AEMO to provide a sandbox timeline and scope</p>	Action inline with SWG schedule	Pending

Forward meeting plan

Emily Brodie

Upcoming meetings

- Procedures working group meetings:
 - Thursday, 13 December 2018
 - Monday, 21 January 2019
- Procedures focus groups:
 - Settlements focus group – Monday 26th November, Melbourne
 - Dispatch focus group – Tuesday 27th November, Melbourne
- Next Program Consultative Forum
 - Tuesday 4th December
- Next Executive Forum
 - Tuesday 12th February 2019
- 5MS Meetings and Forum Dates:
<http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement>

General questions

Emily Brodie

Appendix

Amended NEM Settlement Revisions Policy consultation timeline

NEM Settlements Revisions Policy	Previous date	Updated date
Focus group meets if required	First half of November 2018 if required	Monday, 26 November 2018
AEMO publish first stage notice, draft policy and draft consultation paper	Friday, 7 December 2018	Friday, 14 December 2018
PWG first stage notice submissions due	Friday, 15 February 2019	Friday, 22 February 2019
AEMO publish second stage notice, updated draft policy, draft report and non-confidential submissions	Friday, 15 March 2019	Friday, 22 March 2019
PWG second stage notice submissions due	Thursday, 28 March 2019	Friday, 5 April 2019
AEMO publish final stage notice, final policy, final report and non-confidential submissions	Monday, 13 May 2019	Monday, 13 May 2019