

5MS Procedures Working Group #12

Tuesday, 12 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
Preliminary matters			
1	10:00am – 10:10am	Welcome, introduction and apologies	Emily Brodie (AEMO)
2	10:10am – 10:15am	Minutes and actions from previous meeting	Emily Brodie (AEMO)
Matters for noting			
3	10:15am – 10:35am	Procedures workstream update	Emily Brodie, Blaine Miner, Austin Tan (AEMO)
Matters for discussion			
4	10:35am – 10:55am	Power system operations rules consultations	Sujeewa Rajapakse (AEMO)
5	10:55am - 11:25am	Debrief on Metering Focus Group	Blaine Miner (AEMO)
6	11:25am – 11:55am	Metering Consultation Overview	Blaine Miner (AEMO)
7	11:55am – 12:15am	UFE Trends Report feedback summary	David Ripper (AEMO)
Other business			
8	12:15am – 12:25am	Forward meeting plan and general questions	Emily Brodie (AEMO)

Minutes and actions from previous meeting

Emily Brodie

Responses to PWG actions

	Topic	Action	Response
7.12.1	Dispatch procedures	AEMO to share marked-up copies of the Dispatch Miscellaneous Package with the PWG for comment.	First release shared for comment in July. Second release in August. Further information in the Dispatch update at PWG 12.
9.3.1, 10.2.1, 11.2.1	5MS Readiness	AEMO invites feedback from the PWG on the approach to transition the 5MS procedures workstream to BAU.	No further responses since PWG 11. Four initial responses: <ul style="list-style-type: none"> • 2 were comfortable with the suggested approach. • 2 were supportive of maintaining the PWG until substantive consultation has completed. On balance, have enough substantive content to support PWG meeting in July and August, and potentially for September.
9.4.1, 10.2.2, 11.2.3	UFE Trends Reporting	PWG to provide feedback what content would be most useful to participants in the UFE Trends Report.	AEMO to present general themes at PWG 12.

Responses to PWG actions

	Topic	Action	Response
11.2.2	UFE Trends Reporting	AEMO to share general themes of responses received to the UFE Trends Report.	General themes of received responses will be shared at PWG 12.
11.2.5	AEMO info sheets	AEMO to consider what standardised FAQ and info sheets can be provided to the industry, especially around non-contestable unmetered loads.	Too early to produce info-sheets for non-contestable unmetered loads. Timing to be considered after detail has been finalised. AEMO will continue considering what other info-sheets can be provided to the industry.
11.3.1	Mandatory Restrictions	AEMO to advise PWG on the approach to updating the Mandatory Restrictions Offers procedure.	The consultation approach will be presented today at PWG 12
11.7.1	Metering Package 2	AEMO to consider what additional information could be provided to assist stakeholders in understanding the content and approach taken for Metering Package 2.	This will be discussed in the metering consultation update at PWG 12.
11.7.2	Metering Package 2	PWG to provide feedback on a preferred approach in supporting the Metering Package 2 consultation.	This will be discussed in the metering consultation update at PWG 12.

Procedures workstream update

Emily Brodie

Procedures workstream status (Level 3 milestones)

	Pre-consultation		Consultation			
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	Dec-18 & Mar-19	Apr-19	Aug-19	Sep-19	
3. Metering - Miscellaneous*	Jul-18	Feb-19	n/a	Jun-19	Aug-19	
B2B Procedures - B2B file size	n/a	Feb-19	n/a	n/a	n/a	
SETTLEMENTS						
SRA	Jun-18	Jul-18	n/a	Jul-18	Aug-18	
SRA round #2	Jun-18	Feb-19	Mar-19	Jun-19	Aug-19	
TNSP	Feb-19	Feb-19	n/a	Apr-19	Jun-19	
Estimation	Aug-18	Aug-18	Nov-18	Feb-19	Apr-19	
Reallocations	Dec-18	Dec-18	n/a	Dec-18	Feb-19	
Miscellaneous	Oct-18	Oct-18	Dec-18	Mar-19	May-19	
Prudentials	Aug-18	Sep-18	Apr-19	Jun-19	Aug-19	
DISPATCH						
2. Dispatch - Spot market - Rules consultation	Sep-18	Oct 18 ongoing	Jan-19	Jun-19	Aug-19	
2. Dispatch - Spot market - For comment*	Sep-18	Oct 18 ongoing	n/a	Jul-19	Aug-19	
3. Dispatch - Pricing - Rules consultation	Aug-18	Aug 18 ongoing	Aug-18	Sep-18	Nov-18	
3. Dispatch - Pricing - For comment*	Aug-18	Aug 18 ongoing	n/a	May-19	Jun-19	
4. Dispatch - Miscellaneous*	Jan-19	Feb-19	n/a	May-19	Jun-19	
POWER SYSTEM OPS						
1. Operations - Miscellaneous*	TBA	Apr 19 ongoing	n/a	n/a	Oct-19	

TIMING
Started and on track
Started late
Overdue

CONTENT
No issues
Issues
Severe issues

Procedures workstream meetings

- PWG #13 Monday 12th August, content:
 - Debrief on dispatch focus group
 - Debrief on metering focus group
 - Update on metering consultations
- Focus groups:
 - **Dispatch focus group**, Tuesday 16 July, AEMO offices
 - **Metering focus group**, Thursday 18 July, Sydney

Consultations - Metering

5MS Metering package 2

- First stage submissions closed on 24 June 2019
- Draft Determination currently scheduled to be published on 5 August 2019

5MS Metering package 3

- Includes a number of guidelines and reference documents
- AEMO will be publishing these documents for comments only
- AEMO will consider comments received and then publish the final versions to the AEMO website

Closed consultation – Settlements

5MS Settlements package – TNSP Negative Settlements Residue Procedure (Completed)

- Final procedures published 14 June 2019
- <http://aemo.com.au/Stakeholder-Consultation/Consultations/Five-Minute-Settlement---NEM-TNSP-Negative-Settlements-Residue-Procedure>

Open consultations - Settlements

5MS Settlements package – Auction Participation Agreement

- Second round consultation commenced 25 June 2019
- Second round submissions due 16 July 2019
- Final report and procedures scheduled for publication on 5 August 2019
- <http://aemo.com.au/Stakeholder-Consultation/Consultations/Five-Minute-Settlement---Auction-Participation-Agreement>

5MS Settlements package – Prudentials - Credit Limit Procedures

- Second round consultation commenced 20 June 2019
- Second round submissions due 12 July 2019
- Final report and procedures scheduled for publication on 16 August 2019
- Proposed changes include 5MS amendments that are administrative in nature, and amendments to season definitions moving the month of April under the winter season (effectively removing the shoulder 1 Maximum Credit Limit (MCL) review)
- <https://www.aemo.com.au/Stakeholder-Consultation/Consultations/Five-Minute-Settlement---Credit-Limit-Procedures>

Upcoming consultations - Settlements

5MS Settlements package – Settlements Guide to Ancillary Services Payment and Recovery

- Does not requires Rules consultation under NER 8.9. Guide will be published for a single round of comment.
- Originally part of the Settlements Miscellaneous Package. Publication of draft guide was delayed from 21 June to 19 July 2019
- Comments on draft guide due 9 August 2019.
- Final report and procedures scheduled for publication 30 August 2019

Consultations - Dispatch

5MS Dispatch package – Pricing and Misc. Procedures (Non-Rules Consultation)

- These documents do not require formal consultation under NER 8.9
- Receiving comments until 28 June 2019
- Final procedures will be published July 2019
- <http://aemo.com.au/Stakeholder-Consultation/Consultations/Dispatch---Pricing-and-miscellaneous-procedures>

5MS Dispatch package – Spot Market Operations Timetable

- Second round consultation commenced 11 June 2019
- Second round submissions due 5 July 2019
- Final report and procedures scheduled for publication on 16 August 2019
- <http://aemo.com.au/Stakeholder-Consultation/Consultations/Spot-Market-Operations-Timetable>

Non-rules dispatch guides – consultation schedule

Document Title	Package	Draft procedures	Submissions due	Final procedures
SO_OP_3704 - Predispatch	2. Dispatch - Spot market	Aug	Sep	Oct
SO_OP_3705 - Dispatch				
Pre-Dispatch Process Description				
Efficient Dispatch and Localised Recovery of Regulation Services Business Specification	4. Dispatch - Specifications			
Treatment of Dispatchable Loads in NEM	5. Dispatch - Miscellaneous			
Brief on Automation of Negative Residue Management				

Update: Power system operations

Sujeewa Rajapakse

Mandatory Restriction Offers Procedure - consultation approach

- Current Mandatory Restrictions process and the procedure SO_OP_3713 – Mandatory Restriction Offers are based on a 30 minute Mandatory Restriction Offers process.
- Post 5MS implementation, Mandatory Restriction Schedules and Mandatory Restriction offers have 5 minute resolution
- AEMO has considered the inherent accuracy of the Mandatory Restrictions process and the system impact to make it a complete 5 minute process and propose:
 - Mandatory Restriction Schedules to have five minute resolution however the value for each five minute interval in each 30-minute will be the same.
 - MR offers at 5 min resolution so they can be submitted with normal dispatch offers, but require to be the same for every 5 min interval in each 30-minute period (or if not the same AEMO will default to last 5 min Trading Interval and apply for whole period).
- Explain this arrangement in procedure SO_OP_3713 – Mandatory Restriction Offers
- Updating SO_OP_3713 requires a NER consultation
- Anticipated timeframe for commencing this consultation is early Aug 2019

SO_OP_3717 Procedure for the Dispatch and Activation of Reserve Contracts - consultation approach

- Post-5MS Rules define the “Intervention Price Dispatch Interval” as an “Intervention Price Interval”.
- This terminology change affects the consulted procedure SO_OP_3717 because it refers to “Intervention Price Dispatch Interval”.
- The procedure change to implement terminology change requires a consultation
- AEMO plans to combine this consultation with the one for Enhanced RERT which is a substantive consultation.
- First stage consultation is expected to commence in early September 2019, with final procedures to be published in January 2020. PWG will be informed of the finalised dates.
- Completing consultation on SO_OP_3717 in January 2020 may not be consistent with the 5MS rules, AEMO is liaising with AER on a suitable arrangement

Debrief on Metering Focus Group

Blaine Miner

Debrief on Metering Focus Group

- Agenda
 - Metering Consultation Update
 - MSATS Standing Data Scenarios
 - Non-contestable Unmetered Loads
 - Proposed Metering Data Quantity and Quality SLAs
 - Changes to RM Reports
 - Readiness Workstream
 - Preparing for 1 July 2021

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
Metering Consultations Overview	<ul style="list-style-type: none"> - Overview of how MP1, MP2-ICF and MP2-5MS/GS fit together - Confirmation on what MP2 was implementing and material items discussed in the consultation paper - Discussion regarding potential submission extensions - MP3 likely to include approx. 5-6 non-rules based documents which will be published for comment 	<ul style="list-style-type: none"> - MFG to provide detailed advice on preferred options for communicating how the Metering Package procedure versions fit together. - MFG to provide feedback regarding the likelihood, benefits and trade-offs of requesting potential submission extensions
MSATS Standing Data Scenarios	<ul style="list-style-type: none"> - AEMO provided an in-depth overview of the 30+ MSATS Standing Data scenarios it had identified to ensure the appropriate treatment of various loads with the introduction of: <ul style="list-style-type: none"> - UFE publication obligations from 1 July 2021 and - UFE financial settlement from 6 Feb 2022 <p>Associated Questions:</p> <ul style="list-style-type: none"> - Who will pay for the Bulk connection point metering if the LR is now GLOPOOL? - How would DBs know when to apply SGA NMI Classification Codes? 	<ul style="list-style-type: none"> - MFG to consider preferred options regarding the recovery of Bulk connection point metering fees - AEMO and the MFG to consider preferred SGA identification and classification options - AEMO to consider and apply alternative labelling of Hybrid scenarios - MFG to consider alternative options in handling "mixed import/export" scenarios

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
MSATS Standing Data Scenarios		<ul style="list-style-type: none">- MFG to provide feedback regarding the physical and market based requirements associated with cross-boundary scenarios- AEMO to circulate the underlying diagram used to support the MSATS Standing Data scenarios agenda item- AEMO to consider how and where the information captured in the MSATS Standing Data scenarios diagram could be included in AEMO documentation e.g. diagram or table version included in the NMI Procedure document

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
Non-contestable Unmetered Loads	<ul style="list-style-type: none">- Member raised a question as to what the expected metering classification code would be for these non-contestable unmetered loads e.g. type 8<ul style="list-style-type: none">- AEMO mentioned that the first stage consultation proposed the introduction of a new Metering Installation Type code of 'NCONUML' for these loads- Member raised the issue of contestability for these loads.<ul style="list-style-type: none">- AEMO confirmed that these loads will be treated as market loads but that the AEMC currently considers these loads to be non-contestable	None required

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
Proposed Metering Data Quantity and Quality SLAs	<ul style="list-style-type: none">- AEMO provided context as to why and what was being proposed for metering data quantity and quality standards- Concerns were raised that requiring 100% quality requirements too early in the settlement cycles may result in unintended consequences e.g. premature final substitutions being delivered<ul style="list-style-type: none">- General discussion occurred regarding various scenarios leading to MDPs not being able to provide actual meter reads for remotely read meters for prolonged periods of time- AEMO stated that the final standards needs to strike the right balance between supporting high quality market outcomes and practicality	None required

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
RM Reports	<ul style="list-style-type: none"> - AEMO provided an overview of the expected changes to the RM reports - AEMO stated that they are looking to start 'pushing data' rather than participants 'pulling data' in the future - LNSPs suggested that including them as recipients of the automated "pushed" RM43 report would be useful, as most UFE related enquiries are "controllable" by LNSPs - AEMO confirmed that both API and FTP will be supported as part of the 5MS program - AEMO noted that changes/requirements impacting RM reports may occur throughout the program due to the discovery of additional implementation requirements and/or the implementation of approved Change Requests - AEMO stated that metering data resolution, in the applicable RM reports, will align to the various levels of metering data being received by AEMO from MDPs i.e. if the MDP delivers 5min metering data to AEMO for a particular NMI, 5min resolution/payloads will be provided for in the associated RM report 	None required

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
Readiness Workstream	<ul style="list-style-type: none">- AEMO provided an overview of the scope, priorities and timings of the Readiness Working Group (RWG)- Members asked a couple of clarification questions regarding potential accreditation update requirements<ul style="list-style-type: none">- AEMO confirmed that potential accreditation updates may be required for certain Meter Service Providers e.g. MDPs depending on the amount of change an MSP has had to implement to comply with their 5MS obligations- Members asked questions as to how SWG activities would be considered by the RWG<ul style="list-style-type: none">- AEMO stated that 'yes' the RWG would include SWG activities, such as transition, cutover and testing requirements where appropriate- AEMO noted that the development and finalisation of key readiness artefacts would occur over the next 6mths- AEMO noted that the MFG would have an ongoing role during the Readiness phase of the program, transitioning from a procedural focus to a transition and cutover focus	None required

Debrief on Metering Focus Group

Agenda Item	Items of Interest	Actions/Next Steps
<p>Preparing for 1 July 2021</p>	<ul style="list-style-type: none"> - Discussions associated with 1 July 2021, 6 Feb 2022 and transitional activities had occurred throughout the day - AEMO noted that the content provided in the agenda item was not to be seen as a comprehensive list but instead as a list of items to support ongoing considerations relating to the successful implementation of the 5MS Program - UFE Publication from 1 July 2021 slide – discussion occurred regarding the need for the DNSP, Retailer and customers agreeing to size and profile of NCULs - Changes to the delivery of meter data to AEMO slide – AEMO confirmed that net datastreams must be converted to register level datastreams for type 1, 2, 3 and subset of type 4 meters, in the CNDS table, by 1 July 2021 - The transition of datastreams, from net to register level, for other interval meters is specified in the MP2 first stage procedures - AEMO suggested that metering data and datastreams associated to reactive energy should be delivered to AEMO where the Q and/or K registers exist in the CRI table - A member raised concerns about the data storage exemption not being extended to other type 4, 4A and 5 meters by the AEMC <ul style="list-style-type: none"> - AEMO stated that the materiality of this issue would need to be quantified by participants prior to potential rule changes being considered 	<p>None required</p>

Metering Consultation Update

Blaine Miner

Metering package #2 – Submissions Overview

- 20 Submissions were received by the closing date, Monday 24 June 2019
 - The submissions were published on AEMO's website on Friday 28 June 2019
- Almost 1,000 pieces of feedback received
- Material Items
 - Treatment and profiling of non-contestable unmetered loads
 - Metering data quality and quantity requirements
 - Inclusion of MSATS Standing data scenario content into the relevant procedures e.g. NMI Procedure
 - Approach to the removal/replacement of the LR and the introduction of the ENLR

Metering package #2 – Submissions Overview

Material Item	High-level Response Summary	Recommended Approach
NMI to device relationship for non-contestable unmetered loads	<ul style="list-style-type: none"> Varying views: <ul style="list-style-type: none"> 1 to 1 1 to Many Allowing for both 1 to 1 and 1 to Many 	<ul style="list-style-type: none"> Allow for both options in the Draft Procedures
Profiling of non-contestable unmetered loads	<ul style="list-style-type: none"> Varying views re: <ul style="list-style-type: none"> Simplicity vs complexity Who performs the profiling itself i.e. MDPs or AEMO 	<ul style="list-style-type: none"> 2 different profiling approaches for predictable vs unpredictable NCUL loads MDPs to perform profiling function to preserve confidentiality of the agreed arrangements
Metering data quality and quantity requirements	<ul style="list-style-type: none"> Participants wanted to make sure AEMO struck the right balance in improving requirements while not introducing unintended consequences 	<ul style="list-style-type: none"> Still being considered
MSATS Standing data scenarios	<ul style="list-style-type: none"> Procedures do not fully reflect the scenarios discussed in the June MFG 	<ul style="list-style-type: none"> Scenario content was not previously included as some of the content had not been established at the time of publishing the MP2 first stage procedures Scenario content will be fully incorporated into the Draft Determination procedures
Removal/replacement of the LR and the introduction of the ENLR	<ul style="list-style-type: none"> Removal of LR and the addition of the ENLR has not been implemented accurately in all instances 	<ul style="list-style-type: none"> Feedback to be considered and applied in the Draft Determination procedures

PWG advice being sought

Deliverable	Indicative date
Issues Paper published	20 May 2019
Submissions due on Issues Paper	24 June 2019
Draft Report published	5 August 2019
Submissions due on Draft Report	19 August 2019
Final Report published	30 September 2019



- Any further material items (additional to the 5 mentioned on the previous slide) for the Draft report?
- What are the benefits, disadvantage and trade-offs of:
 - Fully 'decoupling' the ICF and MP2 consultations i.e. the MP2 procedure versions would no longer include/consider ICF changes
 - Allowing additional time for participants to respond to the Draft Determination
 - Various timing options regarding the publication of MP3 guidelines and documents
E.g. Publish in Aug or after MP2 is finalised

UFE Trends Report - Feedback summary

David Ripper

UFE Trends Report - PWG Feedback summary

- Global Settlements Rule requirements:
 - 11.112.3 AEMO to publish report on unaccounted for energy trends
 - a) **By 1 March 2022** AEMO must prepare and publish on its website the first report on unaccounted for energy required under new clause 3.15.5B(a)
 - b) AEMO is not required to comply with the UFE reporting guidelines required under new clause 3.15.5B(d) when preparing and publishing the report referred to in paragraph (a) for the first time.
 - 3.15.5B Reporting by AEMO on unaccounted for energy trends
 - AEMO to report on unaccounted for energy trends
 - a) **At least once each year**, AEMO must in accordance with the UFE reporting guidelines, prepare and publish on its website a report setting out:
 1. AEMO's summary and analysis of the total unaccounted for energy amounts in each local area over the reporting period;
 2. AEMO's analysis of the unaccounted for energy amounts in each local area in the reporting period against benchmarks determined by AEMO acting reasonably;
 3. AEMO's analysis of the sources of unaccounted for energy in each local area;
 4. AEMO's recommendations to improve visibility of unaccounted for energy in each local area; and
 5. AEMO's recommended actions to reduce the amounts of unaccounted for energy in each local area, including without limitation any actions that AEMO recommends ought to be taken by Market Participants, Network Service Providers, the AER or AEMO.
 - b) The purpose of the report required under paragraph (a) is for AEMO to provide information and analysis of unaccounted for energy in each local area to facilitate efficient decreases in unaccounted for energy over time.
 - c) Network Service Providers, Market Participants, Metering Data Providers, Metering Providers, Embedded Network Managers and large customers must provide to AEMO such information and assistance as AEMO reasonably requires to prepare the report required under paragraph (a).

UFE Trends Report - PWG/SFG Feedback summary

Feedback

"The proposed content of the report looks fine. Only specification would be to see the UFE in the local area to be shown both in total MWh terms and as a % of total energy."

"Profile comparisons (between profile areas)

Any known explanations for losses

Remediation steps and any road blocks in investigations

Progressive comparisons between reporting periods to highlight improvements or deterioration"

"Too much uncertainty to provide any specific feedback/requirements at this stage. Preliminary thinking is to at least include Period to Period change in UFE and losses."

"... neutral on the content that would be most useful to participants in the UFE Trends Report."

"Would like to see the variability of UFE as a percentage of TME and analysis of such variability. Among other things this could provide insight as to the appropriateness of the profiling of Type 6 and 30/ 15 minute interval reads."

- Five respondents
- Generalised requirements suggested which will be considered as part of developing the UFE Trends report in due course:
 - What data is needed?
 - What tools are required to perform the analysis?
 - How will the report be structured?

Forward meeting plan

Emily Brodie

Upcoming meetings

- Procedures Working Group meeting:
 - Monday 12 August 2019
- Readiness Working Group:
 - Friday 26 July 2019
- Next Systems Working Group
 - Monday 15 July 2019
- Next Executive Forum
 - Wednesday 14 August 2019
- Next Program Consultative Forum
 - Thursday 8 August 2019
- 5MS Meetings and Forum Dates:
<http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement>

General questions

Emily Brodie

