

5MS Systems Working Group (SWG) Meeting Notes

MEETING: 12
 DATE: Monday, 15 July 2019
 TIME: 10:00 AM – 1:00 PM
 LOCATION: AEMO Offices Melbourne, Brisbane, Sydney and by Webex

ATTENDEES:

ATTENDEE	ORGANISATION	OFFICE
Sammy Wainrit	AEMO	Melbourne
Mark Hillaby	AEMO	Melbourne
Greg Minney	AEMO	Melbourne
Ian Devaney	AEMO	Melbourne
Hamish McNeish	AEMO	Melbourne
Simon Tu	AEMO	Melbourne
Madhuri Malhotra	AEMO	Melbourne
Ron Novella	AusNet Services	Melbourne
Drew Pass	Engie	Melbourne
Greg Fawcett	Engie	Melbourne
Varun Dewan	Engie	Melbourne
Chris Leffler	AGL	Melbourne
Annett Reitmann	AGL	Melbourne
Monica Morona	AEMO	Sydney
Kim Elms	Stanwell Corporation	Brisbane
Adam Neilson	Stanwell Corporation	Brisbane
Gerard Dunne	Stanwell Corporation	Brisbane
Tim Bellette	Stanwell Corporation	Brisbane
Elizabeth Byrne	Stanwell Corporation	Brisbane
Adrian Donnelly	Unknown	WebEx
Adrian Honey	TasNetworks	WebEx
Andrei Tchoub	Unknown	WebEx
Arif Syarifuddin	Powercor	WebEx
Armand Jose	Jemena	WebEx
Dino Ou	Endeavour Energy	WebEx
Gerard Dunne	Stanwell Corporation	WebEx
Hugh McFarlane	Snowy Hydro	WebEx
Ingrid Farah	Ergon Energy	Phone / WebEx
Jack Yates	CQ Partners	Phone / WebEx
Jarraah Van Rijswijk	Hydro Tasmania	WebEx
Jon Ham	Energy Australia	WebEx
Joseph Giddings	Energy One	WebEx
Justin Wearne	Energetiq	WebEx
Justin Needham	SA Power Networks	WebEx
Linda Brackenbury	Plus ES	WebEx
Luke Emrose	Energy Australia	WebEx
Mahduri Maleki	AusNet Services	WebEx
Manoj Parameswaran	Unknown	Phone / WebEx
Marina Bakh	Jemena	WebEx
Martin	Unknown	WebEx

Matt	Unknown	WebEx
Natasha Rajdev	Alinta Energy	WebEx
Nicole Bright	Energy Queensland	Phone / WebEx
Paul Greenwood	Vectorams	WebEx
Paul Willacy	Aurora Energy	WebEx
Peter Gramp	Alinta Energy	WebEx
Sam	Unknown	WebEx
Shane Basnayake	Energy One	WebEx
Sharleen Flanagan	ERM Power	WebEx
Snehal Jogiya	ERM Power	WebEx
Steven Caruana	Energy One	WebEx
Stewart Bryce	ERM Power	Phone / WebEx
Tariq Pervaz	Red / Lumo Energy	WebEx
Tilin Yi	Energy Australia	WebEx
Travis Boyle	EQL	WebEx

NOTE: NOT ALL ATTENDEES JOINING BY DIAL IN MAY HAVE BEEN IDENTIFIED.

Preliminary Matters

1. Welcome – S. Wainrit

Attendees were welcomed to Systems Working Group #12 (SWG).

AEMO noted that as the SWG had been operating for 12 months, the 5MS & GS team had reviewed the SWG purpose and functionality of the group.

AEMO noted the role of the SWG to provide information to support and encourage discussion and consider industry views in the development of technical documents and system issues. AEMO also noted the expectations on SWG members to participate in the discussion forum, ensuring that members were prepared to table participant views and raise any issues.

2. Minutes and Actions from last meeting – H. McNeish

Open actions:

- 1.6 Design completed and AEMO is currently assessing implications.
- 9.7.6 Update and detail provided at the SWG #12 in August 2019

Detail of closed actions may be found in the Actions table at the end of this document. Closed actions to note:

- 7.6 completed and expected to be available in 2 months
- 11.9.1 Meeting to be held to further discuss MSATS Standing Data Scenarios

Matters for Noting

3. Retail Stream Update – H. McNeish

- AEMO confirmed that, as discussed at the PCF, and based on the feedback from the SWG, the L2-M3 and L2-M4 milestones have been updated to the 30 September date to align with Procedures Metering Package 2.
- AEMO noted that there has been a large amount of feedback on Metering Package 2, however so far there has not been significant change to the MDM file format and load process; the main changes have been adding more detail around transition.

- AEMO noted that the standing data scenarios we presented at the previous SWG have had a lot of change.

(NOTE: AEMO is planning a separate focus group session to go through these in detail with the SWG.)

- AEMO noted that updated Metering Package 2 documents will be published 5 August 2019.
- AEMO raised an action for AEMO to update the associated dates for the Readiness and Testing activities, which is now managed under the readiness stream. This may mean moving this reporting to the Readiness stream.

ACTION 12.3.1: AEMO to determine the best method of communicating the readiness activity timeline, and to update the incorrect detail in the SWG slides.

- AEMO sought feedback from SWG members on whether they were planning to move to B2M via APIs and the timeline to do so, would these be once released by AEMO or after the 5MS changes?
 - AGL noted NMI discovery would be their first up-take of APIs, around Q2 2020.
 - AusNet won't be looking to leverage APIs and will remain on FTP.
 - ENGIE will be looking at this – but are dependent on their vendors.
 - Stanwell will remain on FTP, after 5MS they will look at APIs across the board.
 - Red and Lumo, Red remains on FTP, Lumo will move to APIs but don't have a timeline yet.
 - An SWG Participant queried when B2M via APIs would be able to be tested, AEMO confirmed the test dates for B2M via API is in Staging by end Dec 2019, and pre-prod by Feb 2020.
 - EQL/Energex/Ergon will move to APIs once the 5MS program completes.
 - Flow Power plan to remain on FTP and APIs as it is now.
 - Jemena will move to APIs post the 5MS program.
- AEMO raised an action for any further feedback to be provided by SWG members.

ACTION 12.3.2: SWG members to provide any further feedback on if they plan to move to B2M via APIs and the expected timeline.

- Stanwell requested AEMO consider uploading the project plan in an MPP format to better facilitate downloading and managing changes to program dates.

ACTION 12.3.3: AEMO to consider publishing an MPP file that reflects the systems timelines.

4. Dispatch Stream Update – I. Devaney

- The technical specifications document has been released for comment with additions to modelling, mandatory restrictions, pricing, negative residue and administered price cap for Dispatch Packages 1 and 2.
- Deliverables for the Staging Environment are on track to be released on 29 November, this includes bidding servers; web bidding servers; dispatch, pre-dispatch and PASA.
- Internal discussions are underway in relation to PASA, mandatory restrictions and fast start inflexibility profile. (FSIP)

- Fast start inflexibility profile will be presented to Dispatch Focus Group 16 July to discuss approach and seek approval for management of mandatory restrictions.

Action 12.4.1 RWG Members to review Technical Specifications and provide feedback to AEMO via 5MS@aemo.com.au.

5. Settlements Workstream Update – S. Wainrit

- AEMO confirmed that the L2 milestones have been updated to reflect the day due, not just the month.
- AEMO confirmed that the L2 milestones are still on track for delivery with the next one being the Final Reallocation Technical Specification due 15 October 2019.

6. Readiness Workstream Update – G. Minney

- AEMO presented 5MS & GS Readiness definitions and workstream scope.
- SWG members questioned why the Readiness definition did not include certification of meters, as there is an obligation for specific meters to transmit 5-minute granularity, from 1 July 2021. AEMO advised it will be incorporated into the scope.
- AEMO confirmed that meters will need to be installed, certified and capable of communicating 5-minute data granularity. This will apply to type 1-3 meters and a number of type 4 and type 7 meters.
- Jemena queried if there is an accreditation process required for cutover prior to 1 July 2021. AEMO advised there is no accreditation process regarding the performance of metering service providers but will be looking at certification process for Settlements applications which will be an internal certification.
- AEMO advised that specific Transition and Testing Focus Groups would be established, raising the question of whether there is any proposed timing for the Testing Focus Groups. AEMO confirmed that it will consult with participants on the timing to allow enough time for detailed planning.
- Stanwell queried whether AEMO had received any feedback on the Interim Readiness Questionnaire questions and criteria and when participants could expect AEMO to circulate the finalised questions. AEMO confirmed that the feedback period had ended, and feedback had been received. AEMO will take feedback on board and incorporated in the final version of the survey.

Stakeholder Engagement Update – M. Morona

- AEMO presented slides on proposed amendments to milestone approach in the form of Milestone Review and Assessment. The changes have been endorsed by the PCF.
- The intention is for the assessment to be used every time a milestone change is being considered. The assessment will be sent to industry participants via email with request for feedback.
- Participant surveys issued at the conclusion of working groups have been valuable to AEMO to improve approach to engagement with participants and in preparation of meeting packs. AEMO is endeavouring to present more targeted agendas to incorporate topics industry are seeking further information on.

- There were requests for more clarity regarding topics AEMO is seeking stakeholder feedback on and AEMO will provide more detail in advance by including an additional column in the agenda with questions that will be directed to participants for each meeting.
- Additionally, AEMO will hold more focus groups will be held as the need is identified.

Matters for Discussion

7. Settlements Reallocations Overview – P. Gutierrez

- An update was provided in regarding 5MS changes related to Reallocations, including the transition to 5-minute reallocation, alternatives for 30-minute reallocations after 5 minutes, and indicative time lines.
- AEMO also outlined the additional functionalities and ease of use:
 - API to be available for Participants to develop own reallocation interfaces;
 - Regional calendars;
 - Regional calendars;
 - New business alerts;
 - Single filterable list of reallocations;
 - Reverse cancel feature; and
 - Copy functionality.
- AEMO received a number of questions from SWG Members:
 - Is a single list of reallocations expected to show multiple participant information?
For companies that control multiple participant IDs, this is not going to be the case. List will only show reallocations relating to the participant set in MMS.
 - Regarding the switch over from 30-minute reallocations to 5-minute (outlined in slide 38), as the last half hour of 30 June 2021 ends the 1 July 2021 – would that mean we are missing half hour?
Reallocation requests are not captured as date/time in a single field, but rather as two components date (without time) and Period ID therefore there is no “missing” half hour.
 - Having an early version of the API at a 30 minutes basis, would the later version of the API cater for 30-minutes and 5-minutes?
There will be only one version of the API this will support 5-minute and 30-minute intervals.
 - Are the functionalities under consideration likely or unlikely to proceed?
All the mentioned functionalities are the most likely to be implemented.

Debrief – Metering Focus Group – S. Tu

- The June Metering Focus Group (MFG) predominately focused on the Global Settlements Rule Metering Procedure Changes Package 2, which covered changes to:
 - MSATS procedures CATS/WIGS
 - Meterology procedures

- Service Level Procedures Metering Data Providers / Embedded Network Managers
- The changes to the delivery of metering data to AEMO are due to Five-Minute Settlement Rule Global Settlements Rule, with the primary items coming out of the draft determination:
 - Non-Contestable Unmetered Loads
 - Quality and Quantity Standards for remotely and non-remotely read meters
 - MSATS Standing data scenarios
 - Modified LR role – for meters impacted by Global Settlements (GLOBPOOL)
- Submissions on the draft package closed 24 June 2019, with the publication of the draft procedure and draft determination expected for 5 August 2019.
- AEMO presented its position on the changes to these topics, as relates to the NMI Classification Codes. AEMO is happy to undertake a dedicated walkthrough of NMI Classification Codes once the draft procedure and draft determination have been published in August.
- Additional items covered related to Reports
 - RM11, RM37 (missing data for WIGS)) - 1 day prior to “Prelim” Settlement;
 - RM38 Data Stream Missing report - 2 days prior to “Final” Settlement;
 - RM39 Mismatch Data Report – 2 days prior to “Final” Settlement; and
 - RM43 UFE Factors by Profile Area.
- AEMO also provided clarification to the data stream requirements:
 - Meters directly impacted by the 1st July 2021 5MS rule need their DataStream identifies in MSATS updated to register suffixes for 1/7/2021;
 - DataStream’s for all other interval meters to be migrated 1st December 2022; and
 - Reactive energy datastream should be delivered to AEMO where the Q and/or K registers exist in the CRI table for the purpose of UFE analysis.

Technical Specifications – H. McNeish and S. Tu

July / August Timeline

- AEMO presented the technical specifications that will be released in July and August.
- AEMO noted that the technical documents included in Metering Package 2 would have the next draft released on 5 August 2019

EMMS Technical Specification

- AEMO informed SWG Members that the EMMS Technical Specification would have three separate documents to better manage the amount of information, and different timelines. This includes a separate document for:
 - Dispatch and Operations
 - Reallocations
 - Settlements and Billing

Mandatory Restrictions

- AEMO presented the approach to mandatory restrictions and noted AEMOs assessment that there is a very low likelihood of a requirement of systems changes as a result of AEMOs proposed position.
- AEMO requested SWG Members to raise any concerns with AEMOs approach to finalisation of the technical specification before the MR Offer Procedure is finalised.

ACTION 12.10.1: SWG Members to raise any concerns with AEMO's approach to mandatory restrictions at SWG 13.

- AEMO noted that no concerns were raised at the Dispatch Focus group, solely clarifications on how bids work for MR.
- Stanwell queried if AEMO would validate that the MR Quantities were the same for each 5-minute period – AEMO confirmed this would be done.

Trading Data

- AEMO presented the proposed changes to the Trading Data package which are included in the latest technical specification; changes include:
 - TRADING_PRICE will change from 30-minute prices to 5-minute prices from the Dispatch interval ending 1 July 2021 00:05;
 - A new AVERAGEPRICE30 table will be introduced, around March 2020, which will continue to provide the 30-minute price data, this is required under the rules; and
 - The remaining Trading tables are proposed to be retired, as they can be replaced by the Dispatch tables.
- AEMO requested feedback from the SWG attendees on the proposed changes. The following feedback was received:
 - A member queried the calculation of the 30-minute average price.
*AEMO confirmed this would be calculated as the 30-minute trading price is calculated today. **This will be the average of the 6 respective 5-minute dispatch regional reference prices.***
 - Members noted the value of a continued 30-minute prices for systems that relied on this, as well as to support forward contracts based on the 30-minute spot price.
 - AGL noted they were looking at more detail on the impact, however an initial concern was the dispatch tables were somewhat different in structure, for example RUN_DATETIME versus PERIODID.
 - A member asked how much historical data would be provided for the 30-minute price data.
AEMO confirmed that once released (expected around March 2020) AEMO would start publishing the data from and this would mirror the TRADING_PRICE table data.
 - A member queried if historic prices would be populated.
AEMO stated that the TRADING_PRICE table contains the historical 30-minute prices, this wouldn't be duplicated into the AVERAGEPRICE30 table. Noting that there is nothing to stop participant populating the historic data from the TRADING_PRICE table if they choose to do so.
 - A member queried what would happen with the DISPATCH_PRICE table, as TRADING_PRICE does the same thing.

AEMO stated that it will remain, and it contains additional prices, such as when intervention occurs.

- Stanwell also commented on DISPATCH_PRICE but noted that with intervention it made sense to keep it. Stanwell will provide confirmation of its view but had no initial concerns.
- A member commented that TRADING_INTERCONNECT is useful from an SRA reconciliation perspective.

MSATS 5MS Technical Specification

- Feedback was received from 2 participants, with no significant matters raised through the submissions.
- AEMO stated the next draft would be provided by 5 August 2019.
- AEMO noted there were changes from the last feedback, including:
 - Changing to clarify how to set up gateways to support push messages from AEMO;
 - Most changes will be in the MDM File Format and Load process document;
 - Some clarifications will be added to the document; and
 - There also needed to be a timeline update.
- AEMO requested any feedback from SWG members. General feedback was provided that the specification met expectations.

Dispatch Focus Group – Proposed Agenda – I. Devaney

- The next Dispatch Focus Group will be held 16 July, across AEMO sites and via WebEx.
- Topics for discussion include:
 - 5 Minute Pre-dispatch Enhancements;
 - 5MS Impacts on PASA;
 - 5MS Impacts on RERT; and
 - Mandatory Restriction Offers Under 5MS.

Other Business

Forward Meeting Plan – H. McNeish

- The next Systems Working Group meeting will be held on Monday 19 August. Discussion topics for the next Systems Working Group meeting were presented and AEMO requested feedback from participants in relation to additional topics for discussion.
- MSATS Standing Data Scenarios focus group will be held in early August.
- AEMO noted that meeting dates were available in the online calendar on the 5MS & GS webpage here. However, noted that there are browser compatibility issues with online calendar due to caching. There is also an up-to-date downloadable version.
- Stanwell asked if it would be likely for a testing focus group to run prior to the next SWG or if this would be a topic of discussion in future meetings.

ACTION 12.12.1: AEMO to advise SWG of first Testing Focus Group when details available.

Further information on the 5MS program, and a calendar of all meeting and forum dates can be found via the following link: <http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement>

General Questions – S. Wainrit

- Members queried if the Settlements package will include Settlements residue options and all the changes. AEMO confirmed that changes to settlements and billing will be included. No impact expected to SRA.
- AEMO was asked if there is any projection on the number of meters (including type 4 and 5) capturing 5-minute data by the end of 2022. AEMO advised that volume predictions could be presented at the next SWG.

Action 12.13.1: AEMO to present predictions to SWG on volume of meters capturing 5-minute data by the end of 2022.


API Gateway – Staging Only

AEMO sought feedback from participants in relation accessibility of new APIs in the 5MS Staging environment. There is a limitation to 5MS staging environment only with reference to bidding and reallocations to start with and then metering. By the time participants get to pre-prod AEMO expects the issue will be resolved.

Action 12.13.2: SWG members to provide feedback to AEMO regarding the 5MS Staging environment and any concerns relation to the new APIs being only accessible via the internet and not available via MarketNet.

Item	Topic	Action required	Responsible	Status
SWG 12				
12.3.1	Retail Update	AEMO to determine the best method of communicating the readiness activity timeline, and to update the incorrect detail in the SWG slides.	AEMO	19 August 2019 – SWG #13
12.3.2	Retail Update	SWG members to provide any further feedback on if they plan to move to B2M via APIs and the expected timeline.	SWG Members	16 August 2019
12.3.3	Retail Update	AEMO to consider publishing an MPP file that reflects the systems timelines.	AEMO	19 August 2019 – SWG #13
12.4.1	Dispatch Update	RWG Members to review Technical Specifications and provide feedback to AEMO via 5MS@aemo.com.au.	SWG Members	16 August 2019
12.10.1	Dispatch Update	SWG Members to raise any concerns with AEMO's approach to mandatory restrictions at SWG 13.	SWG Members	16 August 2019
12.12.1	Forward Agenda	AEMO to advise SWG of first Testing Focus Group when details available.	AEMO	Ongoing
12.13.1	General Questions	AEMO to present predictions to SWG on volume of meters capturing 5-minute data by the end of 2022.	AEMO	19 August 2019 – SWG #13
12.13.2	General Questions	SWG members to provide feedback to AEMO regarding the 5MS Staging environment and any concerns relation to the new APIs being only accessible via the internet and not available via MarketNet.	SWG Members	16 August 2019
SWG 11				

11.4.1	Metering Update	MDPs, Retailers and Generators to raise any likely impact on their schedules or associated risks should this document be delayed to 30 Sep 2019	SWG Participants	26 June 2019 Closed
11.4.2	Metering Update	MDPs, Retailers, Distributors and Generators to raise any likely impact on their schedules or associated risks should this document be delayed to 30 Sep 2019	SWG Participants	26 June 2019 Closed
11.9.1	MSATS Standing Data Scenarios	SWG Participants to inform AEMO if a more detailed Scenario discussion is required via 5ms@aemo.com.au	SWG Participants	3 July 2019 Closed AEMO to organise a focus session
11.11.1	Technical Document Update	SWG Members to consider including detail on any submissions for Metering Procedures Package 2 on the value of warnings where meter standing data is not yet configured in MSATS	SWG Participants	24 June 2019 Closed
11.12.1	Forward Meeting Plan	AEMO to include Staging and Metering Focus Group updates at the August SWG #14	AEMO	15 July 2019 Closed
11.12.2	Forward Meeting Plan	AEMO to add Readiness updates as a standing agenda item at the SWG	AEMO	15 July 2019 Closed
11.12.3	Forward Meeting Plan	SWG Members to provide feedback on any items where a focus group may be beneficial	SWG Participants	3 July 2019 Closed
SWG 10				

10.9.4	General Questions	AEMO will consider approach and advise participants when error codes are proposed to be published.	Jim Agelopoulos	 <p>Pending AEMO is currently considering approach and will advise participants when error codes are proposed to be published.</p>
SWG 9				
9.7.6	Metering – Meter Data Delivery	AEMO to provide clarification for reporting in the cutover period, where the reports go across the 30min and 5min intervals, will reports display data for both 48 and 288 intervals.	Greg Minney	<p>Pending Greg Minney will be leading the Readiness Workstream and working through strategy and approach documentation in regard to cutover. Dates will be publicised to the SWG when known.</p>
SWG 1				
1.6	Participant bandwidth implications	AEMO to provide assessment on bandwidth / networking impacts.		Design completed and AEMO is currently assessing implications.