

AGENDA

MEETING: 5MS PROGRAM – PROGRAM CONSULTATIVE FORUM

DATE: MONDAY, 3 SEPTEMBER 2018

TIME: 10:00PM – 1:00PM AEST

LOCATION: MELBOURNE, LEVEL 22, 530 COLLINS STREET, VIC
 SYDNEY, LEVEL 2, 20 BOND STREET, NSW
 BRISBANE, LEVEL 10, 10 EAGLE STREET, QLD
 ADELAIDE, LEVEL 9, 99 GAWLER PLACE, SA

TELECONFERENCE: DIAL: **02 61949930** ACCESS CODE: **670629**

MEMBERS: NOMINATIONS AS LISTED

No.	Agenda Item	Paper	Responsible	Action
Preliminary Matters				
1	Welcome, introductions and apologies		Chris Muffett	Note
2	Minutes and actions from previous meeting	<i>Presentation</i>	Chris Muffett	Note
Matters for Noting				
3	Program update	<i>Presentation</i>	Chris Muffett	Note
4	Industry risks & issues	<i>Industry risk/issue register</i>	Emily Brodie	Note
5	Procedures workstream update	<i>Presentation</i>	Emily Brodie	Note
6	Systems workstream update	<i>Presentation</i>	Hamish McNeish	Note
Matters for Discussion				
7	Small participant engagement	<i>Small participant engagement in 5MS</i>	Chris Muffett	Discuss
8	Feedback on focus groups	<i>Presentation</i>	Emily Brodie	Discuss
Other Business				

9	General questions		Chris Muffett	Discuss
10	Forward meeting plan	<i>Presentation</i>	Chris Muffett	Note

Next meeting: **4 October 2018**

Program Consultative Forum Members

Name	Parent Company
Christian Suprijatna	Acciona Energy Oceania Pty Ltd
Balwant Singh	Active Stream Pty Limited
Robert Lo Giudice	Acumen Metering
Dan Mascarenhas	AGL Energy Limited
Chris Streets	AGL Energy Services
Darren Pace	Alinta Energy Retail Sales Pty Ltd
Industry Relations Alinta Energy	Alinta Energy Retail Sales Pty Ltd
Bob Poker	Alinta Energy Retail Sales Pty Ltd
Scott Sheehan	Arrow Energy Trading Pty Ltd
Corinna Woolford	Aurora Energy Pty Ltd
Paul Willacy	Aurora Energy Pty Ltd
Emma Youill	AusNet Services
Justin Betlehem	AusNet Services
Stephen Thompson	AusNet Services
Craig Oakeshott	Australian Energy Regulator (AER)
Lillian Patterson	Clean Energy Council Limited (CEC)
Ty Christopher	Endeavour Energy
Matthew Parker	Endeavour Energy
Melinda Green	Energy Australia Pty Ltd
Georgina Snelling	Energy Australia Pty Ltd
Carly Irving	Energy Queensland
Mark Williamson	Energy Queensland
Ben Pryor	ERM Power Limited
Jeff Roberts	Evoenergy
Gary Gupta	Flow Power
Tim Moran	Geomatic Technologies
Gary Butcher	Geomatic Technologies
Mark Maiolo	Hansen Technologies Limited
Ben Friebe	Hansen Technologies Limited
Shane McCarthy	Hydro Tasmania (Hydro-Electric Corporation)
Christine Lu	Infigen Energy Holdings Pty Ltd
Stephanie Easton	Infigen Energy Markets Pty Limited
Robert Pane	InterGen Pty Ltd
Peter Spittle	Jemena Limited
Stephanie Lommi	Lumo Energy Australia Pty Ltd
Daniel Hillier	Meridian Energy Australia Pty Ltd
Brad Pye	Metering Dynamics
Fergus Stuart	Origin Energy (VIC) Pty Limited
Dean Lane	Origin Energy Limited
Linda Brackenbury	Plus ES
Trevor Lane	Powercor Australia Ltd
Gabriel Clark	Powermetric
Ian Wolhuter	Powermetric
Peter Van Loon	Powershop Australia Pty Ltd

David Woods	SA Power Networks
Aakash Sembey	Simply Energy
Panos Priftakis	Snowy Hydro Limited
Adam Branson	Stanwell Corporation Limited
Owen Self	Stanwell Corporation Limited
Bryce Turnbull	TasNetworks
Adrian Honey	TasNetworks
Leanne Rees	TasNetworks
Piera Lorenz	Telstra
Chris Murphy	Telstra Corporation Limited
Peter Lorenz	Telstra Corporation Limited
Kristina Thompson	United Energy Distribution Pty Ltd
Paul Greenwood	Vector Advanced Metering Services (Australia) Pty Ltd
John Chiodo	ZEN Energy



Five-Minute Settlement Program: Program Consultative Forum 3

AEMO 5MS Program Team

MONDAY 3 SEPTEMBER 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 6194 9930 ACCESS CODE: 670629

Agenda

NO	TIME	AGENDA ITEM	RESPONSIBLE
Preliminary Matters			
1	10:00am – 10:10am	Welcome, introduction and apologies	Chris Muffett (AEMO)
2	10:10am – 10:20am	Minutes and actions from previous meeting	Chris Muffett (AEMO)
Matters for Noting			
3	10:20am – 10:40am	Program update	Chris Muffett (AEMO)
4	10:40am – 10:50am	Industry risks & issues	Emily Brodie (AEMO)
5	10:50am – 11:10am	Procedures workstream update	Emily Brodie (AEMO)
6	11:10am – 11:30am	Systems workstream update	Hamish McNeish (AEMO)
	11:30am – 11:40am	Break	
Matters for Discussion			
7	11:40am – 12:00pm	Small participant engagement	Chris Muffett (AEMO)
8	12:00pm – 12:20pm	Feedback on focus groups	Emily Brodie (AEMO)
Other Business			
9	12:20pm – 12:30pm	General questions	Chris Muffett (AEMO)
10	12:30pm – 12:40pm	Forward meeting plan	Chris Muffett (AEMO)

Minutes and actions from previous meeting

Chris Muffett

Program update

Chris Muffett

High-level status

- Procedures work is progressing well, with all activities on track:
 - Working groups and focus groups have been constructive
- Systems work is ramping up:
 - Stakeholder engagement has commenced
 - Development work to commence in Q4 2018
- Rule changes:
 - Global settlement draft determination published 30 August
 - Potential additional rule change to address drafting amendments – as agreed, this will be considered as part of the PWG activities
- Stakeholder engagement is proceeding:
 - PWG and SWG meeting regularly
 - EF meeting scheduled for 10 September
 - 1-on-1 discussions have been held

1-on-1 discussions

- AEMO has held discussions with a cross-section of participants, to understand:
 - How participants are going about preparing for 5MS?
 - Are there other risks & issues which need to be considered?
 - Is AEMO's program helpful for participants?
- Feedback received indicates:
 - Participants are at different stages of development
 - Several learnings from PoC have been taken on board (particularly starting early)
 - Working with external software partners and service providers has some challenges
 - Regular 1-on-1 meetings with AEMO are worthwhile
- Next steps:
 - AEMO is considering whether to publish a summary – feedback welcome
 - Proposing to conduct an online survey in October

Industry risks & issues

Emily Brodie

Summary

- Latest risk/issue register included with meeting pack
- Risk/issue register is published on 5MS PCF page:
<http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement/Program-Management/Program-Consultative-Forum>
- AEMO welcomes any feedback from the PCF on the risks & issues

Risk/issue updates

- Two risks added following PWG:
 - R08: Procedure changes arising from IT activities
 - R09: Future rule changes could affect the implementation of 5MS
- Two issues closed following PCF discussions:
 - I02: Small participant engagement (covered by R01)
 - I03: Competing projects, impact on stakeholders (covered R06)
- Industry champions nominated:
 - R01: Small participant engagement
 - R06: Interaction with other industry changes

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	Nov-18	Jan-19	
2. Metering - MSATS and SLPs	Jul-18	Nov-18	Feb-19	May-19	Jul-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	
	TIMING			CONTENT		
*no rules consultation required	Started and on track			No issues		
	Started late			Issues		
	Overdue			Severe issues		

Procedures workstream

- Second PWG held Monday 27 August
 - Settlements – Estimations
 - Dispatch - Pricing
- Two focus group meetings have been held so far, with another planned:
 - Dispatch focus group meeting, 14th August 2018
 - Metering focus group meeting, 15th August 2018
- Joint procedures/IT system focus group:
 - Metering/Systems, 14th September 2018

Systems workstream update

Hamish McNeish

Systems Workstream - Activities

- First SWG held on 24th August
 - Impact across Retail and Wholesale
 - Proposed schedule
 - Bids/offers interface architecture
 - Meter data interface architecture
- Next SWG – 17th September
- Joint procedures/IT system focus group:
 - Metering/Systems, 14th September 2018
- Underway:
 - Requirements gathering
 - Ongoing procedures and system interaction/feedback/options investigation from PWG and SWG
 - Metering and Settlement solution options

System Workstream - Dispatch

- Planned dates are subject to PWG consultation progress
- Early Release depends on PWG outcomes

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING								
	Internal HLIA	SWG Engagement	Focus/Group	Draft Tech Spec	Final Tech Spec	User Guides	Sandbox	Preprod	Production
DISPATCH									
Bidding API's and Data Model	Aug-18	Sep-18	Sep-18	Oct-18	Feb-19	Oct-19	Nov-19	TBC	Early Release
Web Bidding	Aug-18	Sep-18	Oct-18	Mar-19	Jul-19	Oct-19	Nov-19	TBC	Early Release
Dispatch	Aug-18	Oct-18		Oct-18	Feb-19	-	Nov-19	TBC	Early Release
Predispatch (P5, P30)	Aug-18	Oct-18		Oct-18	Feb-19	-	Nov-19	TBC	Early Release
Trading Price / Price Revision	Aug-18	Nov-18	TBC	Mar-19	Jul-19	-	-	Nov-20	May-21
Administered Pricing and CPT	Aug-18	Nov-18		Mar-19	Jul-19	-	-	Nov-20	May-21
Suspension Pricing	Sep-18	Nov-18		Mar-19	Jul-19	-	-	Nov-20	May-21
Negative Residue Management	Sep-18	Feb-19		Mar-19	Jul-19	-	-	Nov-20	May-21
Full Data Model	Sep-18	Mar-19	TBC	Mar-19	Jul-19	Oct-20	-	Nov-20	May-21

System Workstream - Metering

- Planned dates are subject to PWG consultation progress
- Early Release depends on PWG outcomes

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING								
	Internal HLIA	SWG Engagement	Focus/Group	Draft Tech Spec	Final Tech Spec	User Guides	Sandbox	Preprod	Production
METERING									
Meter Data - MDFF	Aug-18	Aug-18	Sep-18*	Nov-18	Feb-19	-	Nov-19	TBC	Early Release
B2M MDFF (API and FTP)	Aug-18	Sep-18	Oct-18	Nov-18	Feb-19	-	Nov-19	TBC	Early Release
Standing Data and validations	Oct-18	Nov-18	Nov-18*	Feb-19	Jul-19	-	Nov-19	TBC	Early Release
B2M via eHub	Aug-18	Nov-18	Dec-18	Feb-19	Jul-19	-	-	TBC	TBC
MSATS Browser (LVI) changes	Oct-18	TBC	TBC	TBC	TBC	TBC	-	Nov-20	May-21
MSATS report changes (RM reports)	Oct-18	TBC	TBC	TBC	TBC	TBC	-	Nov-20	May-21

* = Potential joint focus groups with PWG

Small participant engagement

Chris Muffett

Engagement approach

- AEMO is engaging in order to:
 - Keep participants updated with program status
 - Consultation on procedure changes
 - Develop IT changes
 - Facilitate industry readiness
 - Help participants understand their obligations and changes requires
- The primary method of engagement is through multiple levels of forums/working groups:
 - Executive Forum (EF)
 - Program Consultative Forum (PCF)
 - Working Groups (PWG, SWG & RWG)
 - Focus Groups

Resource- constrained stakeholders

- AEMO recognises the engagement approach can be resource intensive, if stakeholders engage at all levels
 - This is not practical for smaller participants and potential new entrants
- A summary document (included in the meeting pack) has been provided to help outline the supporting activities and methods of engagement that smaller participants can use to achieve each of the objectives
- AEMO welcomes feedback on the approach, and if there's any other activities to consider

Feedback on focus groups

Emily Brodie

Feedback on focus groups

- Dispatch Focus Group was held Tuesday 14th August
 - Dispatch Focus Group meeting outcomes paper distributed to PWG and focus group
 - Dispatch Focus Group meeting outcomes were discussed during PWG
- Metering Focus Group was held Wednesday 15th August
 - Metering Focus Group meeting outcomes papers distributed to PWG and focus group
 - Metering Focus Group meeting outcomes discussed during PWG
- Joint procedures/IT system focus group proposed:
 - Metering/Systems, 14th September 2018

PWG and SWG relationship

- Procedure consultation and subsequent AEMO decisions will drive requirements for system changes
- AEMO system design will align to the 5MS procedures work program
- As procedural consultation continues there is the possibility of change after initial system design
- As system design continues this may also affect procedures
- Procedural items raised in the SWG will be referred to the PWG
- Technical implementation items raised in the PWG will be referred to the SWG
- Joint focus groups may be required between PWG and SWG participants for cross dependencies e.g. transition planning

General questions

Chris Muffett

Further information

- Global Settlement rule change:
 - AEMC website: <https://www.aemc.gov.au/rule-changes/global-settlement-and-market-reconciliation>
- AEMO 5MS Program contacts:
 - Graeme Windley, 5MS Program Manager
 - Chris Muffett, 5MS Business Lead
 - Emily Brodie, 5MS Procedure Lead
 - Hamish McNeish, 5MS Systems Lead
 - Gary Eisner, 5MS Stakeholder Liaison
- Contact details:
 - 5MS email: 5ms@aemo.com.au
 - 5MS webpage: <http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement>

Forward meeting plan

Chris Muffett

Upcoming meetings

- Program Consultative Forums:
 - PCF #4: Thursday 4 October
 - PCF #5: Thursday 8 November
 - PCF #6: Tuesday 4 December
- Next Executive Forum:
 - Monday 10 September (rescheduled from 11 September)
- Next Procedure Working Group:
 - Thursday 13 September
- Next Systems Working Group:
 - Monday 17 September
- Meetings and forum dates:
<http://www.aemo.com.au/-/media/Files/Electricity/NEM/5MS/5MS-2018-Industry-Meeting-Schedule---External-Version.xlsx>



Small Participant Engagement in 5MS

Program objective	Primary engagement methods	Supporting activities and engagement methods
<p>Engagement in program/keeping up to date with program status</p>	<ul style="list-style-type: none">) Program Consultative Forum) Executive Forum 	<ul style="list-style-type: none">) AEMO to distribute all material and updates through distribution lists and ensure all participants are on correct distribution lists) Engagement with intending participants to confirm their understanding of the program) AEMO will consider forums and working/focus groups specific to new participants (~quarterly)) Small participants may elect to collaborate and be represented by peers at main forums (e.g. PCF, PWG, SWG..) with potential to rotate.) Allow out of session commentary on specific agenda items for small participants prior to meeting; commentary to be raised by the Chair during the meeting) Targeted engagement with other industry forums) Fact sheets (including material that is targeted to specific participant activities)) One on one meetings) Calendar on 5MS landing page to feature all relevant dates for program activities

Engagement in procedure consultations	<ul style="list-style-type: none">) Procedures Working Group) PWG focus groups) Consultation processes 	<ul style="list-style-type: none">) Published calendar showing upcoming consultations to feature on web landing page, email updates and newsletters) Summary of consultations highlighting key issues will allow small participants to prioritise with links through to individual procedure consultations) Small participants may elect to collaborate (through specific working groups, focus group, small participants forums) and send in a joint response) Fact sheets (including material that is targeted to specific participant activities)
IT development	<ul style="list-style-type: none">) Systems Working Group) SWG focus groups 	<ul style="list-style-type: none">) Calendar to feature key IT working group, focus group, testing and release dates) Summary of specifications – upcoming and released) Fact sheets (including material that is targeted to specific participant activities)) One on one meetings) Participation in early testings/trials
Readiness	<ul style="list-style-type: none">) Readiness Working Group 	<ul style="list-style-type: none">) Fact sheets (including material that is targeted to specific participant activities)) Published readiness timelines) One on one meetings) Potential specialised working groups or focus groups (specific to small participants/new entrants)
Participants understand their obligations and necessary changes	<ul style="list-style-type: none">) Final rule and determination (available from AEMC website)) Program Consultative Forum) Readiness Working Group 	<ul style="list-style-type: none">) One on one meetings to ensure resource constrained participants have adequate readiness plans in place) Small participants to ensure that they have signed up for all relevant mailing lists) Up to date information on SMS landing page) Fact sheets (including material that is targeted to specific participant activities)