



Five-minute settlement and global settlement

March 2020






Market Readiness Report - Round 1

Background

To monitor the industry's level of readiness for the various 5MS and GS transitional activities and commencements, AEMO will co-ordinate readiness reporting across the industry in accordance with the Readiness Reporting Plan¹. NEM participants are invited to submit readiness information on a periodic basis through a Readiness Assessment Questionnaire. The results from these surveys are presented in this Market Readiness Report.

Readiness criteria

Participants level of readiness will be assessed through general readiness criteria, specific readiness criteria, and also their status against the Metering Transition Plan² (MTP).

Criteria	Overview	Response options	Results presentation	Legend
General Readiness Criteria	Criteria related to the level of program establishment of participant programs.	Participants are asked to provide Yes / No responses to a set of program establishment questions (e.g. if funding is secured).	All Yes and No responses are presented in a pie chart. All responses are unweighted.	 <ul style="list-style-type: none"> ■ Yes ▨ No
Specific Readiness Criteria	Criteria that tracks the implementation of specific market commencement requirements for each participant type. Hence, each participant type will have their own set of specific readiness criteria (e.g. generators ability to submit 5 min bids by 1 July 2021, retailers ability to receive and reconcile 5 minute data).	Participants (including AEMO) are asked to report their status towards fulfilling these requirements by market commencement (on track, at risk or late), and also report on progress in 25% increments.	Participants status and progression towards specific criteria are illustrated through Harvey balls. Each quadrant of the Harvey ball represents 25% progress. Quadrants will progressively fill with solid colours as the criteria is completed. The Harvey Ball will be coloured red, amber or green based on if the criteria is on track, at risk or late. All responses are unweighted.	<p>Status: On track Progress: 1 -</p>  <ul style="list-style-type: none"> ■ Completed ▨ In progress □ Not started <p>Status: At risk Progress: 25 -</p>  <ul style="list-style-type: none"> ■ Completed ▨ In progress □ Not started <p>Status: Late Progress: 50 -</p>  <ul style="list-style-type: none"> ■ Completed ▨ In progress □ Not started
Metering Transition Plan Status	Status monitoring of defined activities in the MTP. The MTP outlines the expected activities, responsibilities, timeframes, as well as other necessary elements required for completion of the 5MS and GS metering transition.	Participants are asked to provide their status towards completing activities by the transition end date for each defined sub-category in the MTP (Complete, On track (started), On track (not started), At risk, Late, n/a). Given that a sub-category has multiple activities supported by various participant types, respondents were only expected to provide status reporting for activities that were relevant to their participant type.	All responses are presented in a pie chart. A separate pie chart will also illustrate the proportion of all responses with n/a responses omitted. All responses are unweighted.	<ul style="list-style-type: none"> ■ Complete ▨ On track (started) ▨ On track (not started) ■ At risk ■ Late 

Participant industry coverage

The approach to gauging industry coverage for each readiness report is described below for each participant type.

Participant type	Industry coverage methodology	Data source
Generator	Generator respondents capacity / Total NEM capacity	AER 2019 state of the market report - generation capacity data
Retailer	Retailer respondents settlement vol. / NEM settlement vol.	AEMO settlement data - 2019 calendar year
MP	MP respondents NMIs / Total NMIs	AEMO metering data
MDP	MDP respondents NMIs / Total NMIs	AEMO metering data
DNISP	Number of DNISPs survey respondents / Total DNISPs	AER 2019 state of the market report - DNISP data
TNSP	Number of TNSPs survey respondents / Total TNSPs	AER 2019 state of the market report - TNSP data

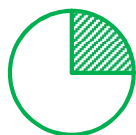
Disclaimer

This market readiness report has been prepared by AEMO at the request of the industry for the purpose of tracking and monitoring the industry's level of readiness for 5MS and GS. This report contains self-reported readiness information provided by participants, and may not be free from errors or omissions. Accordingly, to the maximum extent permitted by law, AEMO makes no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of the information published here; and are not liable (whether by reason of negligence or otherwise) for any statements, opinions or other matters contained in or derived from this information, or any omissions from it, or in respect of a person's use of the information.

¹ Readiness documents, including the Industry Readiness Reporting Plan, and Metering Transition Plan can be accessed at: <https://www.aemo.com.au/initiatives/major-programs/nem-five-minute-settlement-program-and-global-settlement/readiness-workstream/key-readiness-documents>

² Ibid

Overall Status **Commentary**



1 - 25%

- Strong survey response rate and segment coverage has provided reasonable assurance that the results are likely reflective of the overall industry position. A total of 26 organisations representing 55 participant types responded to this survey.
- Responses to general readiness criteria indicates that participant programs have been established and are now focused on the next phase of implementation, this is consistent with interim readiness reporting results.
- The AEMO program is proceeding on track and in line with its overall program milestones.
- From an industry perspective, critical 5MS and GS criteria are being reporting as on track, individual participants have reported activities at risk.
- Some participants have asked for clarifications as to how some metering transition activities will ultimately be implemented. The Readiness Working Group, in partnership with the Transition Focus Group, will establish this level of detail.

Submissions				
↔	This round	Δ prev. round	% Industry coverage	Industry coverage methodology
Organisations	26	n/a	-	-
Total responses	55	n/a	-	-
Generator	8	n/a	80%	Generator respondents capacity / Total NEM capacity
Retailer	10	n/a	73%	Retailer respondents settlement vol. / NEM settlement vol.
MP	13	n/a	93%	MP respondents NEMs / Total NEMs
MDP	12	n/a	99%	MDP respondents NEMs / Total NEMs
DNISP	9	n/a	90%	Number of DNISPs survey respondents / Total DNISPs
TNSP	3	n/a	50%	Number of TNSPs survey respondents / Total TNSPs

Summary Readiness							
	Generator	Retailer	DNISP	TNSP	MP	MDP	Total
General Criteria							# 1
Specific Criteria					n/a	n/a	# 2
MTP Criteria	n/a	n/a			# 3	# 3	# 4

#	Observation	Comments
1	Majority of participants are well established and are now focused on implementation	Majority of participants have secured project funding, established project plans and project governance, and have onboarded project teams. Almost all respondents reported their progress with overall program delivery was at (1-24%).
2	Other industry initiatives are impacting the same resource and systems	NEM reforms are an identified industry risk, considered and managed via the Industry issues and risk register. AEMO to discuss and review this risk with RWG.
3	MPs and MDPs reporting 'n/a' to a large number of metering transition plan activities	Given the specific organisations that have responded to this survey, this result may indeed be valid. AEMO will discuss this result with the RWG to ensure alignment of expectation and delivery requirements under the Metering Transition Plan (MTP).
4	Some participants have asked for clarifications as to how some metering transition activities will ultimately be implemented.	The Readiness Working Group, in partnership with the Transition Focus Group, will establish this level of detail.

Critical 5MS Readiness Criteria			
Completion of BULK / Wholesale metering transition activities - MP	# 5	Completion of BULK / Wholesale metering transition activities - MDP	# 6
Ability to submit 5-minute bids - Generator	# 7	Ability to receive and reconcile 5-minute settlements data - Retailer	

Critical GS Readiness Criteria			
Ability to receive and reconcile UFE allocations data - Retailer		Delivery of Tier 1 basic metering data - MDP	

#	Observation	Comments
5	Response rate relating to the installation and reconfiguration of BULK/Wholesale Meters was low	Two TNSPs that act as the MP for ~46% of Bulk/Wholesale NEMs did not participate in the survey. AEMO will follow up with the applicable TNSPs to confirm readiness progress and ongoing participation in Industry Readiness Surveys.
6	All MDPs responsible for the delivery of 5 minute metering data associated to BULK/Wholesale Meters reported as being on track.	-
7	All except one generator are on track to implement 5 minute bids	Ongoing monitoring of this criteria and escalation if there are industry-wide issues with implementing 5 minute bids

General Readiness Criteria

	Generator	Retailer	DNSP	TNSP	MP	MDP	Total
Overall program delivery progress and status							# 1
Vendor agreements							# 2
Intention to participate in market trials							# 3
Project establishment - Consolidated readiness							
Project funding secured							# 4
Project plan established							
Project governance established							
Project team onboarded							

#	Observation	Comments
1	All except one organisation reported they are on track with their overall programs	Participants are tracking well with implementing 5MS and GS capability, with most participants indicating they are 1-24% progressed and are currently undertaking system design. One participant reported that their program was at risk, noting that there was insufficient time to remediate internal systems and were undertaking mitigations.
2	Respondents are in various stages of engagement with vendors, with all except one reporting they are on track	There was a relatively even split of respondents who have identified vendors, engaged vendors, and commenced negotiating with vendors. One participant did note that their status was at risk due to negotiations with vendors taking longer than expected.
3	All Respondents intended to participant in market trials. One Generator did however report that they were running late.	One Generator reported a late status and noted that they did not believe that the industry testing schedule allowed sufficient time for remediation.
4	Majority of organisations have secured funding. However, 5 reported that they have yet to secure funding and two reported that they are at risk.	The two organisations that reported project funding was at risk noted that their business cases were either awaiting approval or under development. Interim funding has been allocated as a mitigation.

AEMO Readiness Criteria

Overall AEMO Readiness Criteria	# 5	Changes to bidding interfaces	
Bidding Transition		Changes to settlement calculation	
MDM platform upgraded to receive 5 - minute data		MDM platform upgraded to support 5-min profiling	
5 min-format invoices to support reconciliation		Support meter data processing for GS	
Support UFE calculation and publication		Switch Local Retailer and FRMP to GLOPOOL	
Support standing data processing for GS		Support 5-min reallocations	# 6

#	Observation	Comments
5	The AEMO program is proceeding on track and in line with its overall program milestones	-
6	The 5 minute reallocations capability is well progressed and will be released into pre-production late February 2020	Reallocations is on track to go-live into Production on 1 April 2020

Specific Readiness Criteria - Retailer

Number of Retailers that responded	10		% Industry coverage	73%
	Total			Total
Overall specific readiness criteria - Retailer			Ability to receive and reconcile 5 minute settlements data	
Ability to support 5-minute reallocations			Ability to receive and reconcile UFE allocations data	# 1

Specific Readiness Criteria - Generator

Number of Generators that responded	8		% Industry coverage	80%
	Total			Total
Overall specific readiness criteria - Generator	# 2		Ability to submit 5-minute bids	
Ability to support 5-minute reallocations			Ability to receive and reconcile 5 minute settlements data	# 3

Specific Readiness Criteria - DNSP

Number of DNSPs that responded	9		Industry coverage	90%
	Total			
Ability to receive and reconcile 5 minute settlements data				

Specific Readiness Criteria - TNSP

Number of TNSPs that responded	3		Industry coverage	50%
	Total			
Ability to receive and reconcile 5 minute settlements data				

#	Observation	Comments
1	One participant requested clarity on how AEMO will provide validation of Global Settlement Calculations	AEMO to confirm approach regarding the communication of settlement certification results.
2	One Generator reported a late status for all generator related specific criteria	AEMO will follow up with this Generator and see if additional support and escalation is required.
3	Two Generators reported that they are at risk or late relating to their ability to receive and reconcile 5-minute settlements data.	One Generator noted that there was insufficient time to permit remediation of complex system inter-dependencies. Additional resources have been engaged by the Generator as a mitigation.

Metering Transition Plan Status - DNSP

Number of DNSPs that responded	9		Industry coverage	90%
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MSATS Standing Data Creation and Maintenance

MTP #		Total	excl. n/a	MTP #		Total	excl. n/a
	Overall MTP status - DNSP			S26	Standing data - Cross boundary supplies		
S27	Standing data - Non-contestable unmetered loads			S29	Standing data - NCONUML		
S30	Standing data - DWHOLESALE			S31	Standing data - NREG		
S32	Standing data - XBOUNDARY			S33	Standing data - GENERATR		

Metering Transition Plan Status - TNSP

Number of TNSPs that responded	3	% Industry coverage	50%
MSATS Standing Data Creation and Maintenance			
MTP #	Total	excl. n/a	MTP #
Overall MTP status - TNSP			S28 Standing data - BULK Status
S34 Standing data - WHOLESAL			

Metering Transition Plan Status - MP

Number of MPs that responded	13	% Industry coverage	93%
Meter Installation and Reconfiguration			
MTP #	Total	excl. n/a	MTP #
Overall MTP status - MP			S01 BULK / Wholesale Meters
S02 Type 1 - 3 Meters			S03 Subset of type 4 meters - TNI, Market Generator or SGA
S04 Cross Boundary Meters (Known)			S05 Cross Boundary meters (Unknown)
S06 New and replacement Type 4			S07 New and replacement Type 4A
S08 New and replacement VIC AMI meters			S09 New and replacement SAMPLE Meters
S10 Pre-1 Dec 2018/19 Type 4, 4A, VICAMI and SAMPLE meters			S26 Cross-boundary supplies

MSATS Standing Data Creation and Maintenance











































MTP #	Total	excl. n/a	MTP #
S27 Non-contestable unmetred loads			S39 Meter installation type code in MSATS
S40 RegisterID and Suffix values in MSATS			

Metering Accreditation Updates

MTP #	Total	excl. n/a	MTP #
S41 MP accreditation update (for 1 July 2021)			S42 MP accreditation update (for 1 Dec 2022)

#	Observation	Comments
1	A substantial number of MPs are reporting "n/a" against MTP criteria.	Respondents are encouraged to provide additional details as to why certain criteria is not applicable to them. AEMO will discuss this mater with the RWG to ensure there is alignment of expectation and delivery requirements under the MTP.
2	Response rate relating to the installation and reconfiguration of BULK/Wholesale Meters was low	Two TNSPs that act as the MP for ~46% of Bulk/Wholesale NMIs did not participate in the survey. AEMO will follow up with the applicable TNSPs to confirm readiness progress and ongoing participation in Industry Readiness Surveys.
3	A number of MPs reported that they have not commenced various activities which have transition end dates of March 2020, however they are still reporting a status of on track.	According to the MTP, identifying which meters need replacing or reconfiguring should be completed by 31 March 2020 for BULK/Wholesale, Type 1-3, and Subset of type 4 meters. More than half of MPs are reporting that they have not started these activity however they are still reporting as being on track. Follow up will be undertaken with RWG to ensure there is alignment of expectation and delivery requirements under the MTP.
4	On participant reported an 'at risk' status for the alignment of Register IDs and Suffix Values in the MSATS CRI Table.	This issue was discussed at the TFG on 28 Feb 2020. At the TFG, one participant mentioned that the RegisterID is currently being considered for potential removal as part of the MSATS Standing Data Review process. The TFG will monitor the Standing Data Reviews recommendations but in parallel will establish preferred approaches to this alignment activity should it be required.
5	The completion of data cleansing of meter installation type code in MSATS is now late, yet participants are reporting that they are on track	The transition end date (Nov 2019), to complete the data cleanse of meter installation type codes in MSATS, has now passed. However, only two MPs have reported this activity as being completed while all other MPs are still reporting it as being on track. AEMO will discuss this apparent error in reporting with the RWG.

Metering Transition Plan Status - MDP

Number of MDPs that responded		12	% Industry coverage		99%		
Meter Data Delivery							
MTP #	Total	excl. n/a		MTP #	Total	excl. n/a	
	Overall MTP status - MDP		 # 1	S13	BULK/ Wholesale Meters		
S14	Type 1 - 3, subset of Type 4			S15	Cross Boundary meters (KNOWN)		
S16	Cross Boundary meters (UNKNOWN)			S17	New and replacement Type 4		
S18	New and replacement Type 4A			S19	New and replacement VIC AMI meters		
S20	New and replacement SAMPLE Meters			S21	Pre-1 Dec 2018/19 Type 4, 4A, VICAMI and SAMPLE meters		
S22	Type 7 metering installations			S23	Non-contestable unmetered loads		
S24	Tier 1 basic metering data		 # 3	S25	Meter data delivery to AEMO for all interval meters		
MSATS Standing Data Creation and Maintenance							
MTP #	Total	excl. n/a		MTP #	Total	excl. n/a	
S26	Cross boundary supplies			S27	Non-contestable unmetered loads		 # 2
S36	Tier 1 basic meter datastreams		 # 3	S37	Interval meter datastreams		
S38	VIC TUOS datastreams						
Metering Accreditation Updates							
MTP #	Total	excl. n/a		MTP #	Total	excl. n/a	
S43	MDP accreditation update (for July 2021)			S44	MDP accreditation update (for 1 Dec 2022)		
#	Observation	Comments					
1	A substantial number of MDPs are reporting "n/a" against MTP criteria.	Respondents are encouraged to provide additional details as to why certain criteria is not applicable to them. AEMO will discuss this matter with the RWG to ensure there is alignment of expectation and delivery requirements under the MTP.					
2	One MDP noted that the non-contestable unmetered loads they are responsible for are already populated in MSATS.	-					
3	One MDP noted that they currently deliver Tier 1 basic metering data to AEMO and to Industry, hence they have reported this activity as being completed.	-					

5MS GS Industry Readiness Reporting 1 - Survey respondents

Total respondents = 26

#	Organisation	Participant type
1	AGL	Generator, Retailer
2	Alinta Energy	Generator, Retailer
3	Aurora Energy	Retailer
4	Ausgrid	DNSP, TNSP
5	Ausnet Services	DNSP, TNSP, MP, MDP
6	CitiPower Powercor United Energy	DNSP, MP, MDP
7	Endeavour Energy	DNSP, MP, MDP
8	EnergyAustralia	Generator, Retailer
9	Engie	Generator, Retailer
10	Ergon	DNSP, MP, MDP
11	ERM Power Retail Pty Ltd	Retailer
12	Essential Energy	DNSP, MP, MDP
13	Evoenergy	DNSP
14	Flow Power	Retailer
15	Hydro Tasmania / Momentum	Generator, Retailer
16	Intellihub	MP, MDP
17	Metering Dynamics	MP, MDP
18	Mondo	MP, MDP
19	Origin Energy	Generator, Retailer
20	PLUS ES	MP, MDP
21	Powermetric (ERM Power)	MP, MDP
22	SAPN	DNSP, MP, MDP
23	Snowy Hydro	Generator, MP
24	Stanwell	Generator
25	Tango Energy	Retailer
26	TasNetworks	DNSP, TNSP, MP, MDP