

WDR Consultative Group #09 Tuesday 16 March 2021

WebEx only

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PLEASE NOTE THIS MEETING WILL BE RECORDED FOR THE PURPOSE OF PREPARING MINUTES We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging.



Online forum housekeeping











- 1. Please mute your microphone, this helps with audio quality as background noises distract from the information being shared.
- 2. Video is optional, but having it turned off helps with webinar performance and minimises distractions.
- 3. We ask that you utilise the Chat function for any questions or comments you may have if you are unable to use audio.
- 4. If you have dialled in via phone, could you please email your name and organisation to <u>WDR@aemo.com.au</u> for our records.
- 5. Be respectful of all participants and the process.



AEMO Competition Law Meeting Protocol



AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions must:

- 1. Ensure that discussions are limited to the matters contemplated by the agenda for the discussion
- 2. Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO
- 3. Immediately and clearly raise an objection with AEMO or the Chair of the meeting if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

Participants in AEMO meetings **must not** discuss or agree on the following topics:

- 1. Which customers they will supply or market to
- 2. The price or other terms at which Participants will supply
- 3. Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
- 4. Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)
- 5. Refusing to supply a person or company access to any products, services or inputs they require

Under no circumstances must Participants share Competitively Sensitive Information. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

AGENDA

	TIME	ΤΟΡΙϹ	PRESENTER		
1	10:30am – 10:35am	Welcome	Ruth Guest (Chair)		
2	10:35am – 10:40am	Notes, actions and feedback from previous meeting	Emily Brodie		
3	10:40am – 10:45am	Stakeholder update	Emily Brodie		
4	10:45am – 11:00am	WDR registration implementation options	Ruth Guest		
5	11:00am – 11:05am	Baseline eligibility and compliance metrics policy update	Katalin Foran		
6	11:05am – 11:10am	Update on WDR procedure changes: - Retail and B2B - Market and system operations	Gareth Morrah		
7	11:10am – 11:20am	WDR participation guidelines updates	AER		
8	11:20am – 11:25am	Debrief on pulse survey	Chetna Mishra & Emily Brodie		
9	11:25am – 11:45am	General questions and closing	Ruth Guest		
	APPENDICES				
А	Indicative program schedule				
В	Procedure changes timeline				
С	Project and system document changes				

Notes, actions and feedback from previous meeting

Emily Brodie



Responses to WDR Guidelines Q&A meeting actions

#	Торіс	Action	Response
1	Telemetry requirements	AGL to provide 'multiple separate load' scenarios to wdr@aemo.com.au	AGL is preparing scenarios
2		AEMO to develop AGL's scenarios into worked examples and present to the WDR CG.	AEMO to present worked examples at the WDR CG meeting that follows the receipt of scenarios.
3	General questions	AEMO to consider whether a dispatch constraint could be a suitable and pragmatic approach to limiting non- telemetered WDR within a region.	AEMO has determined that this is feasible and will implement this in the final WDR Guidelines.
4		AEMO to consider whether representing multiple NMIs as a single logical NMI would enable a site to become eligible for WDR.	Such loads would not be qualifying loads under NER clause 2.3.6(m)(1). This is outside AEMO's discretion.



Responses to WDR CG #8 meeting actions

#	Торіс	Action	Response
08-04-01	Program update	AEMO to advise the WDR CG on whether the EMMS data model changes for WDR need to be adopted by all market participants.	 Implementing a MMS Data Model upgrade is always optional. AEMO will always make all updates available to all participants. Participants who are active in WDR: Not updating their MMS Data Model means they will not receive the updated information pertaining to WDR business processes, but all other data feeds will continue. Participants who are not active in WDR: May opt not to implement the MMS Data Model updates to align with WDR start, but could choose to group the WDR updates with other MMS Data Model updates that are relevant to them i.e. implement as a bundle in future. AEMO recommends that all participants apply all updates to maintain the consistency of the MMS Data Model. It is the ubiquitous nature of the structure that delivers the industry-wide benefits e.g. availability of vendor software.
08-05-01	2021 WDR forward agenda	WDR CG to provide feedback on the 2021 WDR forward agenda to wdr@aemo.com.au	No responses received. AEMO assumes that the proposed forward agenda is satisfactory at this time. It can be changed in future in response to WDR CG feedback.

Responses to WDR CG #8 meeting actions

#	Торіс	Action	Response
08-06-01	Dispatch compliance update	AEMO to consider the dispatch compliance implications of loads that take a long time to return to baseline after a WDR event.	 WDR dispatch processes are mostly reflective of generation dispatch processes and AEMO has little discretion to accommodate changes for slower responding loads prior to WDR commencement. Participants should plan for loads that take a long time to return to baseline following a WDR event. Considerations include: Ramp rates need to mirror physical attributes to avoid dispatch error. Ramp rates can be different for demand response and for load restoration. Ramp rates takes precedence over availability where a participant re-bids unavailable
08-10-01	Stakeholder engagement survey	WDR CG to respond to the stakeholder engagement survey.	9 responses from stakeholders. Debrief on survey in this WDR CG meeting #9.



Stakeholder update

Emily Brodie



Key documents to look for in March 2021

DATE	DOCUMENT	SUBMISSION/FEEDBACK DUE	
Thu 18 Mar	Draft Baseline eligibility compliance and metrics policy	Thu 8 Apr	
Thu 25 Mar	Final WDR Guidelines	n/a	
Fri 26 Mar	Draft Post-event dispatch conformance framework	Fri 16 Apr	
Wed 31 Mar	Final WDR Industry testing strategy	n/a	



Upcoming WDR engagement

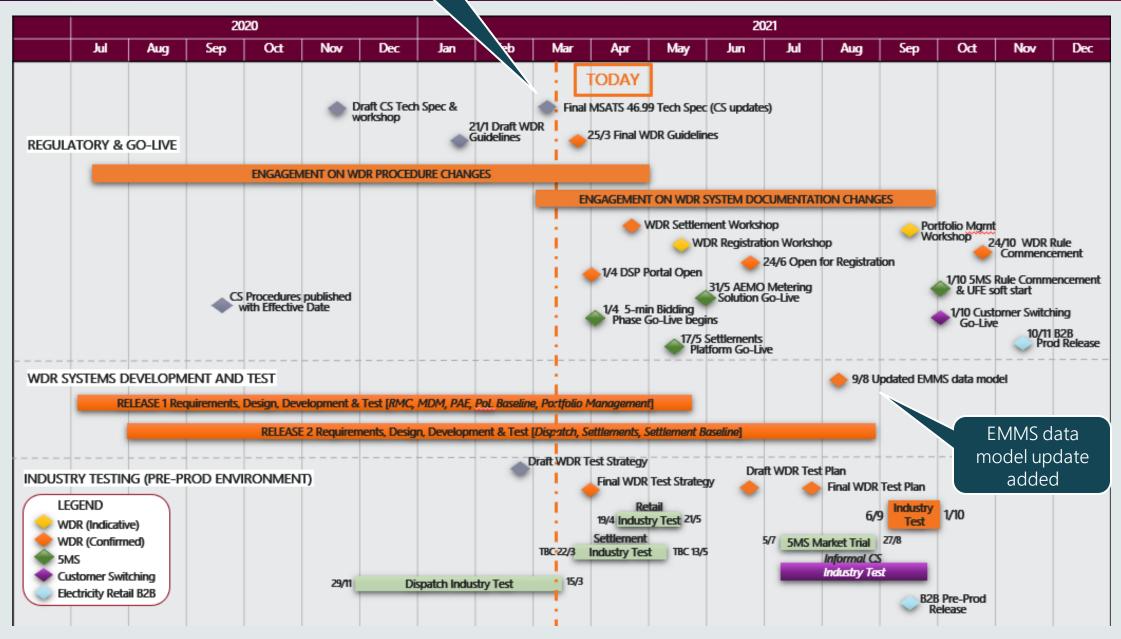
	MARCH	APRIL	MAY
Workshop	Q&A on final WDR guidelines	WDR settlement workshop	WDR registrations workshop
Purpose	 Debrief on: Final WDR guidelines policy approaches and technical settings Key changes from draft WDR guidelines 	 To provide: Refresher on WDR settlement process Examples of WDR settlement against baselines Details of WDR settlement reports 	To provide a detailed explanation of the DRSP registration process and WDRU classification and aggregation processes and where to find forms and guides.
Audience	All WDR stakeholders	FRMPs and prospective DRSPs	Prospective DRSPs
Timing	Mon 29 Mar, 2-3pm AEDT	Wed 28 Apr, 10am-12:30pm AEST	Late May, TBC
Format	Webex	Webex	Webex
Attendee nominations due	n/a	COB Tue 20 Apr	ТВС



Customer switching updates finalised in MSATS tech spec

Current as of 10 MAR 21 Includes updates for 5MS delivery changes

Indicative prog am schedule



WDR registration: Implementation process

Ruth Guest



Context

At the February WDR CG meeting, AEMO:

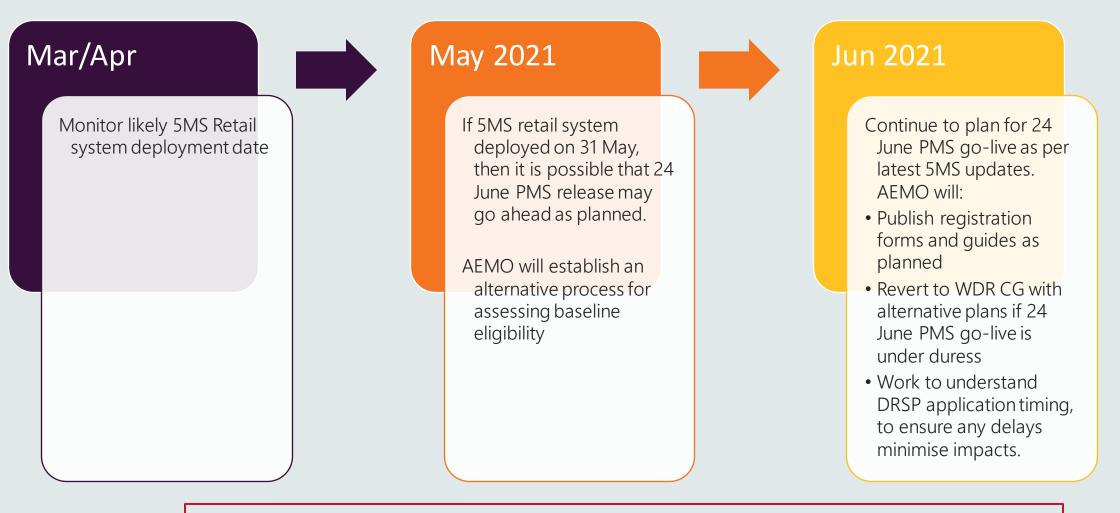
- Explained that the WDR Portfolio Management System deployment may be delayed *if* the 5MS MDM deployment is later than 31 May 2021.
- Presented two options to manage a potential PMS implementation delay and consequent impact to the DRSP registration process:
 - Option 1: Process applications in PM System when it's ready (potentially up to late August)
 - Option 2: Process applications manually from 24 June
- Sought feedback from the WDR CG on the best way to manage a potential PMS implementation delay, including any new options.



WDR CG feedback

- Four responses received from the WDR CG
- Option 1 (Process applications in PM System when it's ready) was favoured by 3 respondents with caveats:
 - Concerns raised about potential for late application processing to impact DRSPs' ability to participate from day one (24 Oct 21)
 - Preference for any delay to PMS system deployment to be closer to 4-weeks rather than 8-weeks
- One respondent favoured manual processing from 24 June to provide as much time as possible prior to WDR commencement to iron out issues.
- One respondent noted that introducing manual application processing would likely create an increase in implementation and operational costs. It noted that these costs should be weighed against the costs of any PMS delay and the number of affected stakeholders.

Next steps



- AEMO will also introduce a WDR *industry risks and issues register*, including the risks associated with any PMS delay and their mitigations
- Draft register to be presented at April meeting for WDR CG consideration

Baseline eligibility and compliance metrics policy update

Katalin Foran



Draft Report and Determination

- Received 6 submissions to first round consultation.
- Key issues covered in submissions/draft report:
 - 1. Accuracy threshold
 - 2. Bias threshold
 - 3. Future changes to baseline metrics
 - 4. Alternative baseline methodologies
 - 5. Eligibility and compliance TIs window
 - 6. Eligibility/compliance excluded days
 - 7. Effect of the 20% accuracy threshold on demand forecasts
 - 8. Effect of the 20% accuracy threshold on the spot market
 - 9. Restricting bidding to baseline day type
- Draft Report and Draft Policy will be published 18 March. Responses due 8 April 2021.

Baseline methodologies for WDRM implementation

- DRSPs will have a choice of 4 baseline methodologies differentiated by day type:
 - i. Business days
 - ii. Non-business days
 - iii. All days
 - iv. Business + non-business days composite (combination of (i) and (ii))
- Based on the CAISO "10 of 10" baseline methodology with an on the day multiplicative adjustment capped at +/-20%.
- The adjustment window will comprise the trading intervals in the 3 hours ending 1 hour before the first WDR trading interval.
- To be described in detail in the Baseline Methodology Register.



Accuracy threshold

- 3 submissions agreed proposed 20% accuracy threshold struck the right balance between baseline predictability and WDRM accessibility.
- 2 submissions believed the threshold was too low and would unnecessarily restrict eligibility.
- 1 submission argued threshold was too generous with a 10% threshold more appropriate.
- AEMO's approach considered a raft of factors alongside baseline predictability, including effect of thresholds on WDRM participation, uncertainties around a new mechanism like WDRM and the effects 5MS.
- AEMO believes that the 20% accuracy threshold strikes the right balance allowing sufficient baseline predictability and not lead to any operational difficulties, while allowing for maximum NMI participation.
- No changes to the draft Policy accuracy threshold remains at 20%.

Bias threshold

- Policy is consistent with the principles in the NER <u>requiring</u> AEMO to develop bias thresholds and assess NMI bias for eligibility and compliance.
- Analysis by OGW showed low baseline bias for the NMI data analysed (with median bias scores under 1% for baseline methodologies tested).
- AEMO believes proposed bias threshold will not materially restrict NMI eligibility.
- Draft Policy updated to reflect a proposed bias threshold of ±4% (Table 1, clause 2.7).
- Threshold will allow for a level of 'noise' in the baseline but not allow a baseline to be eligible for WDRM if it's systematically biased.



Future changes to baseline metrics

- AEMO will review baseline metric thresholds after the first summer of WDRM operation, i.e. post Q1 of 2022.
- Will assess whether the right balance between NMI eligibility and baseline predictability has been achieved.
- Any changes to the accuracy/bias thresholds would only occur after significant industry consultation/sufficient lead times.
- If new thresholds were introduced, NMIs would need to meet the new thresholds for baseline compliance testing to continue participating in WDRM. There will be no grandfathering of eligibility arrangements.



Alternative baseline methodologies

- AEMO understands that the baseline methodologies will not suit every participant perfectly, however this approach:
 - Minimises cost and time to market.
 - Does not preclude the development of further baseline methodologies in the future.
 - Aims to balance accuracy, simplicity, eligibility and integrity.
- Additional baseline methodologies (including potentially those suited to temperature driven loads) may be developed in the future.
- This process is described in the WDR Guidelines and can be initiated both by AEMO or Market Participants.



Eligibility and compliance TIs window

- AEMO completed further analysis with OGW on the baseline TI window and its effects on eligibility.
- Eligibility and compliance TIs windows updated (10am to 8pm) to a shorter time period (3pm to 8pm), coinciding with the high price periods (update will be in the Baseline Methodology Register).
- This will allow more NMIs to be eligible for WDRM.
- Initially AEMO will not have a way of restricting bidding to a particular TI window. Simplification was made to minimise cost and time to market. As thus initially there will be no further flexibility in the eligibility/compliance TIs window.
- Additional baseline methodologies that offer alternative TI windows may be developed in the future.
- Local times versus market time for eligibility/compliance TIs window will use market time as using local time would represent additional complexity without sufficient benefit to justify it.



Eligibility/compliance excluded days

- As requested AEMO amended the draft Policy to include a nonexhaustive list of eligibility excluded days and compliance excluded days:
 - blackout/outage
 - plant shutdown
 - scheduled maintenance
 - scheduled and unscheduled outages
 - site commissioning
- Irrespective of the example list, each submitted excluded day will have to be approved for use by AEMO, with clear reasoning for the request provided by the DRSP.
- AEMO will also provide the DRSP with reasons for why an excluded day is not approved.



Effect of the 20% accuracy threshold on demand forecasts

- Rules require that when determining the baseline methodology metrics, AEMO must have regard to the level of accuracy of short-term demand and intermittent generation forecasts.
- AEMO believes the error rates in these demand forecasts are not directly comparable to the accuracy threshold for WDRM (NMI levels vs regional aggregate, RRMSE statistic vs error % and MW error threshold).
- Determined that the 20% accuracy threshold is unlikely to adversely affect AEMO's demand forecasts.
- AEMO will review accuracy thresholds after the first summer of WDRM operation, i.e. post Q1 of 2022.
- Will assess whether the right balance between NMI eligibility and baseline predictability has been achieved and will examine any effects of the threshold on AEMO's demand forecasts.



Effect of the 20% accuracy threshold on the spot market

- Baseline accuracy metric is a way to limit the potential under or over payment of WDR rather than under or over dispatch of WDR.
- AEMO does not believe that accuracy threshold setting would have an impact on the wider spot market.
- There are additional restrictions in rules to mitigate inaccuracies in baselines and their effect on the spot market, i.e. dispatch conformance process, cap on the amount payable to the DRSP for each WDRU (capped at the maximum responsive component of the relevant load).
- AEMO will review accuracy thresholds after the first summer of WDRM operation, i.e. post Q1 of 2022.
- Will assess any effects of the accuracy threshold on the spot market.



Restricting bidding to baseline day type

- When assessing eligibility/compliance, assessment takes into account load data for the day types relevant to that particular baseline methodology, i.e. for a Business Day Baseline Methodology the eligibility assessment and compliance testing is performed using load data for business days.
- As eligibility assessment and compliance testing is performed by day type, a WDRU should only be bid in for days types associated with the baseline methodology assigned to the WDRU.
- DRSPs responsibility to ensure to bid accordingly.
- AEMO <u>will not settle</u> any dispatch that occurs otherwise i.e. if a WDRU with a Business Day Baseline Methodology bids in on a non-business day, that WDR will <u>not be settled</u>.
- New clause inserted into the Policy makes it clear that a WDRU can only be bid in and be dispatched and settled for days types associated with the baseline methodology assigned to the WDRU.



Draft policy changes/clarifications

- Clarification that any baseline adjustment applicable to a particular baseline methodology will be applied when determining the baseline's relative root mean squared error (clause 2.5) and average relative error (clause 2.6).
- Clarification that the bias threshold applies both as a negative and positive (Table 1, clause 2.7).
- Proposing a bias threshold of $\pm 4\%$ (Table 1, clause 2.7).
- Removing the word 'minimum' with reference to "eligibility days" and "compliance days".
- Provision of a non-exhaustive list of eligibility excluded days (clause 3.2.1) and compliance excluded days (clause 4.5.1).
- Outline of DRSP and AEMO responsibilities around submitting and approving eligibility excluded days (clause 3.2.1) and compliance excluded days (clause 4.5.1).
- Clarifications around application of clause 4.7.2.2, which describes the process for DRSPs using AEMO's Portfolio Management System to make a non-baseline compliant WDRU temporarily unavailable.
- Clarification around application of clause 4.7.2.3, which describes the process for AEMO suspending a non-baseline compliant WDRU if the DRSP does not make it unavailable.
- Inserting a new clause, clause 2.1 (h) that makes it explicitly clear that a WDRU can only be bid in and be dispatched and settled for days types associated with the baseline methodology assigned to the WDRU, i.e. a WDRU under a Business Day Baseline Methodology can only be bid in on a business day.

Update on WDR procedure changes

Gareth Morrah



Retail and B2B

- Final documentation to be published Monday 15 March
- 6 submissions to draft from stakeholders, (14 in first round). Feedback was generally supportive
- Key themes:
 - Decision not to use the PIN to inform DRSP of outages was strongly supported
 - Decision that the DRSP should not be involved in approval process for meter substitutions was strongly supported
- Changes from draft to final:
 - There were no substantive changes from the Draft.



Market and system operations

- Final documentation to be published Friday 12 March
- There were no submissions to the draft determination
- In the draft determination we proposed to amend the Market Suspension Compensation Methodology and selected Battery Storage as the class of Scheduled Generator to be used when determining the capacityweighted average of the benchmark costs
- There were no changes made between the draft and final determinations.



WDR participation guidelines updates





Wholesale Demand Response Participation Guidelines

Notice of Consultation and Issues Paper

Pip Eastgate and Rhiannon Davies (Compliance and Enforcement)

16 March 2021

AER role in WDR implementation

- By 24 October 2021 the AER must develop, in accordance with the full rules consultation procedures, WDR Participation Guidelines which:
 - must include guidance about information a DRSP must keep regarding compliance with its obligations under 3.8.2A and regarding its representations under clause 3.8.22A(a2); and
 - may include guidance relating to the requirements on DRSPs under 3.8.2A(c) (bidding when a WDR unit is baseline non-compliant) and 3.8.2A(d) (bidding when a unit is spot price exposed).
- Rebidding and Technical Parameters Guidelines and Contracts and Firmness Guidelines must be updated by the same timeframe

Rebidding and Technical Parameters Guideline

- The Rebidding and Technical Parameters Guideline:
 - outlines the detail that must be contained in a rebid reason submitted to AEMO;
 - the AER's process for requesting additional information to verify rebid reasons; and
 - several related areas associated with the bidding and rebidding of technical parameters.
- No amendments to the Guideline are required at this time to accommodate the WDR rule change
- AER staff are available to discuss expectations around bidding and rebidding with participants

Timeframes for the AER's WDR Participation Guideline consultation

- Issues Paper sets out:
 - background on relevant Final Rules concepts (informed by AEMC & AEMO processes)
 - preliminary AER views re types of records to be retained by DRSPs
 - a series of questions for stakeholders to consider in submissions.
- 12 March 2021 Notice of Consultation/Issues Paper published on AER website
 - 25 business days' consultation for written submissions
 - 20 business days' consultation via meetings (upon request)
- July 2021 Draft Participation Guideline published on AER website
 - 20 business days' consultation
- By 24 October 2021 Final Participation Guideline published on AER website

Issues Paper submissions process

- Interested parties are invited to make written submissions by COB Friday 23 April 2021
- Public submissions preferred, confidentiality claims must be clearly marked
- Interested parties should indicate in their submission if they consider a meeting with the AER is necessary or desirable
- Submissions should be sent electronically to: <u>aerinquiry@aer.gov.au</u> with the following email title: Wholesale Demand Response Participation Guidelines – Issues Paper
- Alternatively, submissions may be sent to:

Jacqui Thorpe General Manager–Compliance and Enforcement Australian Energy Regulator GPO Box 520 Melbourne VIC 3001

Debrief on WDR stakeholder engagement pulse survey Chetna Mishra and Emily Brodie



WDR stakeholder engagement: Pulse survey methodology

When was the survey rolled out?

After the previous WDR Consultative Group meeting, a link to the survey was shared with the group and a time-frame of 1 week was provided to fill in the survey.



Why did we conduct the survey?

- To understand what we are doing well and identify areas of improvement
- To get inputs on how we conduct the remaining forums
- Act on any identified gaps or areas of opportunity

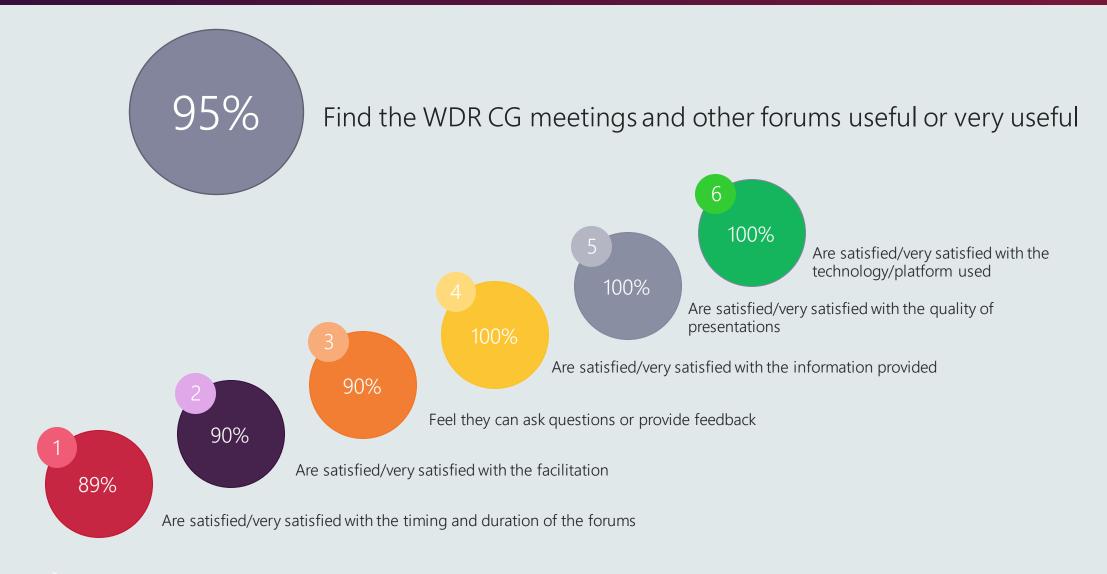


2 Total respondents - 9

Participants – WDR Consultative Group primary and alternative members



WDR stakeholder engagement: Pulse survey quantitative results



WDR CG pulse survey – key themes and next steps

What we've heard	Next steps			
Structure, content and delivery of forums is going well.	No changes proposed.			
Program information can be difficult to access on the website.	Website uplift planned, publishing more participant-specific materials in the coming weeks.			
As AEMO moves into the technical implementation, it will be important to bring together technical experts from both AEMO and stakeholders' businesses.	 In Q2 and Q3 2021, there is planned engagement on: WDR systems documentation changes Systems implementation, including opportunities for industry testing. 			
	Where AEMO has discretion, we will reflect on consultation and transparency of decision-making. We will also be explicit about where AEMO does not have discretion to deviate from the NER in its WDR implementation.			
A concern that AEMO does not appear to deviate from its positions regardless of feedback from stakeholders.	 Program actions to date resulting from stakeholder feedback include: Setting regional thresholds as dispatch constraints rather than via classification Removal of telemetry requirement for dispersed aggregations Expedited timeline for WDR Guidelines development Enhanced DNSP involvement in WDR (data provision, aggregation endorsement) Additional engagement such as Retail systems workshop, 			
	Dispatch/bidding WDRCG session, DNSP workshops. 43			

WDR CG pulse survey – general stakeholder comments

"The meetings are run well, there is plenty of opportunity to ask questions, the team always responds promptly to emails and has made themselves available for several follow up meetings. I really appreciate it."

"Lots of opportunities to provide feedback both during meetings, and out of session." "General and specific engagement is conducted very well, as are updates from each of the different business leads."



General questions

Ruth Guest



WDR contact and information



Mailbox wdr@aemo.com.au



WDR program information

https://aemo.com.au/initiatives/trialsand-initiatives/wholesale-demandresponse-mechanism



WDR stakeholder engagement options https://aemo.com.au/consultations/ind ustry-forums-and-working-groups/listof-industry-forums-and-workinggroups/wdr





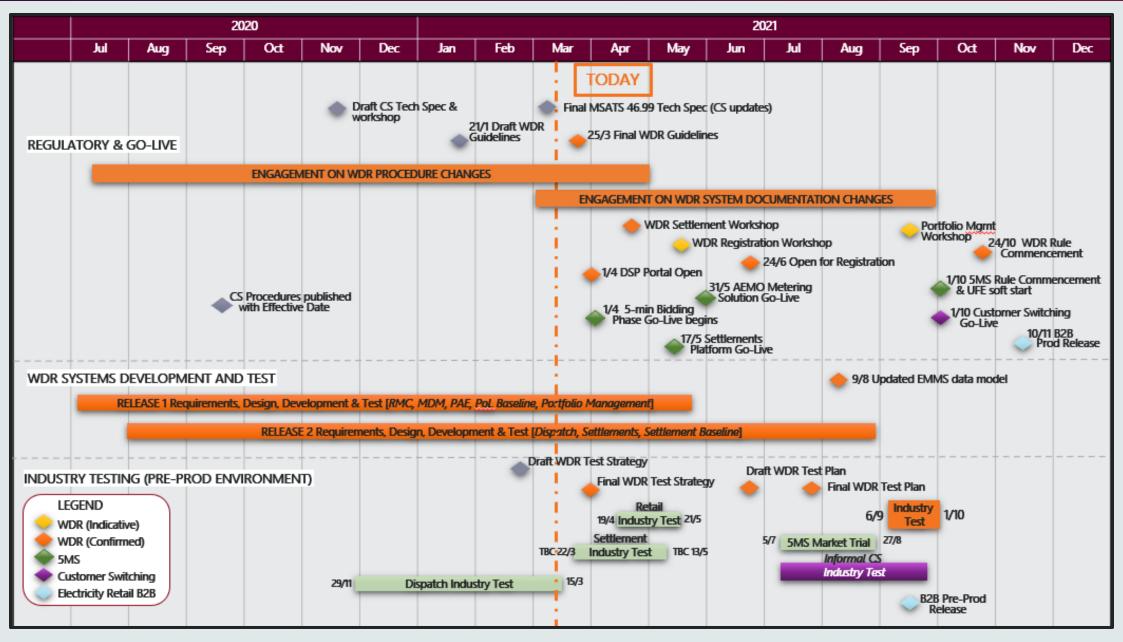
Thank you for your participation!

APPENDIX A Indicative program schedule



Indicative program schedule

Current as of 10 MAR 21 Includes updates for 5MS delivery changes



APPENDIX B Procedure changes timeline



Procedure change timelines

Current as of 10 MAR 21

Procedure package	Consultation Paper	Round 1 Consultation	Draft	Round 2 Consultation	Final
WDR Guidelines	Thu 22 Oct 2020	Fri 27 Nov 2020	Thu 21 Jan 2021	Fri 19 Feb 2021	Thu 25 Mar 2021
<u>Settlements and</u> <u>Prudentials procedure –</u> <u>CLP</u>	Fri 04 Sep 2020	Fri 16 Oct 2020	Thu 12 Nov 2020	Fri 4 Dec 2020	Mon 18 Jan 2021
<u>Settlements and</u> <u>Prudentials procedure -</u> <u>Estimations</u>	Thu 05 Nov 2020	Fri 18 Dec 2020	Mon 18 Jan 2021	Wed 10 Feb 2021	Thu 4 Mar 2021
<u>Retail procedures & B2B</u> guide	Mon 12 Oct 2020	Tue 17 Nov 2020	Tue 15 Dec 2020	Tue 02 Feb 2021	Tue 16 Mar 2021
<u>Market & System</u> Operations procedures	Fri 09 Oct 2020	Tue 17 Nov 2020	Fri 11 Dec 2020	Fri 29 Jan 2021	Fri 12 Mar 2021
Demand-side participation information guidelines	Wed 26 Aug 2020	Wed 30 Sep 2020	Wed 11 Nov 2020	Wed 25 Nov 2020	Fri 18 Dec 2020
<u>Baseline Eligibility,</u> <u>Compliance and Metrics</u> <u>Policy</u>	Fri 18 Dec 2020	Fri 5 Feb 2021	Thu 18 Mar 2021	Thu 8 Apr 2021	Thu 20 May 2021

APPENDIX C Project and system document changes



Project and system document change timelines

Current as of 10 MAR 21

Area	Document	Early version released	Comments due	Updated version published
DISPATCH CONFORMANCE	Post-event dispatch conformance policy	Mar 2021	Apr 2021	May 2021
TESTING	WDR Industry test strategy	25 Feb 2021	11 Mar 2021	31 Mar 2021
	WDR Industry test plan	Jun 2021	Jul 2021	Jul 2021
WHOLESALE – EMMS	EMMS technical specification	Apr 2021	mid May 2021	31 May 2021
	Data Interchange (DI) online help	Aug 2021	n/a	Sep 2021
PORTFOLIO MANAGEMENT SYSTEM	Guide to Portfolio Management System (PMS)	mid Aug 2021	late Aug 2021	mid Sep 2021
	Markets Portal online help (PMS updates)	mid Aug 2021	late Aug 2021	mid Sep 2021
RETAIL – MSATS/eMDM	MSATS technical specification	mid May 2021	early Jun 2021	early Jul 2021
	New or updated MSATS/eMDM guides	early Jun 2021	mid Jun 2021	early Jul 2021

EMMS Data Model script: WDR updates



The Electricity Data Model is the definition of the interface to participants for NEM wholesale data published by AEMO. A database conforming to the Electricity Data Model can contain a local copy of all current participant-specific data recorded in the main NEM database.

Detailed information on the packages, tables and reports in the Electricity Data Model are set out in supporting guides: <u>https://www.aemo.com.au/energy-systems/market-it-systems/electricity-system-guides/wholesale-it-systems-software</u>



