

# WDR Consultative Group #02

Tuesday 21 July 2020

**WebEx only**

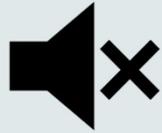
**\*Please disconnect from your workplace VPN for WebEx call\***

**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 [WDR@aemo.com.au](mailto:WDR@aemo.com.au) 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

NO	TIME (AEDT)	AGENDA ITEM	RESPONSIBLE
1	10:00am – 10:05am	Welcome	Ruth Guest (Chair)
2	10:05am – 10:15am	Notes, actions and feedback from previous meeting	Emily Brodie
3	10:15am – 10:30am	Implications of new 5MS start date on WDR	Ruth Guest
4	10:30am – 10:40am	WDR Guidelines and TWG	Greg Ruthven
5	10:40am – 10:50am	Reallocations and WDR	Katalin Foran
6	10:50am – 11:00am	Forward meeting plan	Emily Brodie
BREAK 11:00am to 11:10am			
7	11:10am to 11:40am	WDR and dispatch	Basilisa Choi & Ross Gillet
8	11:40am to 12:00pm	General questions and close	Ruth Guest
APPENDIX			
A	Project schedule		
B	Procedure changes		

# Notes, actions and feedback from previous meeting

Emily Brodie

# Responses to WDR CG meeting actions (1)

#	Topic	Action	Response
01.04.01	Stakeholder engagement approach	Advise WDR CG of options for large user attendance at ERCF and other forums, particularly when WDR matters are being explored.	<ul style="list-style-type: none"> <li>Those wishing to participate in discussions relating to retail procedure changes for WDR should contact <a href="mailto:ERCF@aemo.com.au">ERCF@aemo.com.au</a></li> <li>Those wishing to participate in discussions relating to B2B procedure changes for WDR should contact <a href="mailto:B2BWG@aemo.com.au">B2BWG@aemo.com.au</a></li> <li>Those wishing to participate in discussions relating to system operations procedure changes for WDR should contact <a href="mailto:nemw-cf@aemo.com.au">nemw-cf@aemo.com.au</a></li> </ul> <p>When WDR is on the agenda the chairs of the respective working groups will invite those who have indicated interest in attending those meetings.</p> <p>WDR CG will be notified of upcoming WDR procedure change discussions at the ERFC, B2B WG and NEM WCF</p>
01.04.02		Consider the key WDR information businesses will need and advise AEMO of any further support (e.g. engagement) required to access this information.	No responses received from WDR CG.

# Responses to WDR CG meeting actions (2)

#	Topic	Action	Response
01.04.03	Stakeholder engagement approach (continued)	Provide feedback on AEMO's WDR stakeholder engagement approach	No responses received from WDR CG
01.04.04		Provide feedback on the draft WDR CG terms of reference	No responses received. Will publish the TOR as final.
01.04.05		AEMO to consider the appropriate forum for discussion on the WDRM Rules' dispatch obligations and implications for the range of large users.	To be presented at a high level at this meeting (WDR CG #2)
01.06.01	Approach to developing the WDR guidelines	Include a discussion on the principles underpinning the guidelines development on the TWG agenda.	To be addressed at TWG meeting #1
01.07.01	Approach to updating procedures: Settlements and prudentials	Consider the interaction of WDR and reallocations.	To be addressed at this meeting (WDR CG #2)
01.12.01	Forward meeting plan	Provide feedback on topics and issues for future WDR CG agendas	No responses received from WDR CG. List of issues developed by AEMO is presented later in agenda.

# Implications of new 5MS start date on WDR

Ruth Guest

# AEMC Deferral Decision

Activity	Original date	New date
Commencement of 5MS	1 July 2021	1 October 2021
Commencement of "soft start" GS	1 July 2021	1 October 2021
Commencement of financial settlement of GS	6 February 2022	1 May 2022
Compliance date for all new and replacement metering installations (other than excluded metering installations) to be configured to record and provide 5-minute data	1 December 2022	1 December 2022

# Interaction with other market changes

- AEMO recently developed and consulted on a 'Regulatory Implementation Roadmap'
- Roadmap sets out an holistic view of the industry-wide implementation program for regulatory change initiatives
- Roadmap had go-live date assumptions for key initiatives 5MS and WDR
- Dates now final, so roadmap will be updated and released to participants
- Key issue is co-ordination of regulatory implementation in 2H 2021
- AEMO is presently considering co-ordination matters:
  - Co-ordination of industry readiness e.g. market trials
  - IT development and schema/aseXML co-ordination
  - Testing environments
  - Procedures

# WDR implementation focus areas

- 5 MS release schedule and market trial program will be a focus for WDR planning
- Current intention is to have WDR functionality available to support registration and classification processes mid 2021
- All WDR settlement will be occurring post 5-minute settlement.
- AEMO needs to consider how to transition the baselining eligibility criteria from 30 minute to 5 minute
  - approach will be considered in baselining discussions with WDR TWG
  - 5-minute metering data for WDR units from WDR go-live may be a requirement
- WDR proposed solution has no retail schema changes so no impact/dependencies with customer switching are anticipated at this stage

# WDR guidelines and TWG

Greg Ruthven

# TWG Meeting 1

- First meeting – 1<sup>st</sup> half of Aug, 2-3 hour duration
- Agenda to include:
  - WDR Guideline development – principles, approach, schedule
  - Agree terms of reference
  - Approach for baselines
  - Classification and aggregation requirements
  - Maximum responsive component
  - Telemetry and communications requirements
  - Regional thresholds for increased visibility

# TWG Meeting 2

- Second meeting – early Oct, 3-4 hour duration
- Agenda to include:
  - Baselines
  - Arrangements for provision of WDRU-specific data
  - Carry-over items from meeting 1

# Reallocations and WDR

Katalin Foran

# Reallocations

- DRSPs would have access to Dollar/Energy reallocations (normal processes apply, please see the relevant [Procedure](#)).
- AEMO would need to assess DRSP prudential position (like any other market participant) when using reallocations. Thus if DRSP Maximum Credit Limit (MCL)  $> 0$ , the DRSP would need to provide AEMO with a bank guarantee.
- Under AEMO's current arrangement with ASIC, DRSPs would be excluded from [Swap and Option Offset Reallocations](#). A participant must be a Market Customer, a Market Generator or a Market Network Service Provider to use these reallocations.
- To add DRSPs as a category of participant who could use these reallocations, AEMO would need to lobby ASIC to change the current arrangements.
- From AEMO's past experience, this may be a very long process, and we would want confirmation of DRSPs interest in using these reallocations once WDRM is up and running, to ensure the effort of changing the ASIC arrangements is warranted.

# Forward meeting plan

Emily Brodie

# Context

- WDRM and its commencement recently confirmed by AEMC
- Participants' and AEMO's implementation projects ramping up
- Many issues to progressively work through over next 12-15 months
- Following slides present indicative list of topics and their suggested prioritisation for industry and AEMO consideration.

# Suggested future discussion topics (1/3)

TOPIC	COMMENT	FORUM	INDICATIVE TIMING
Registration of DRSP	Overview of process and capability	WDR CG	Sep-20
	Detailed implementation (once baselines etc have been confirmed)	WDR CG	May-21
Classification of WDRU	Requirements that need to be in the WDR Guidelines	TWG	Aug-20
	Overview of process and capability	WDR CG	Sep-20
	Detailed implementation (once baselines etc have been confirmed)	WDR CG	May-21
Baselines	How WDR baselining works with RERT	WDR CG	Aug-20
	Detailed implementation	TWG	Oct-20
SCADA thresholds	Volume of non-visible WDR in a region	TWG	Aug-20
SCADA eligibility requirements	Identifying when a WDRU connection point needs SCADA (regardless of SCADA threshold)	TWG	Aug-20

# Suggested future discussion topics (2/3)

TOPIC	COMMENT	FORUM	INDICATIVE TIMING
Metering requirements	WDR implications of 5-minute vs 30-minute metering. <b>Note:</b> Types 1 to 3 metering installations and transmission-connected type 4 metering installations are required to have 5-min metering by 1 Oct 21 under the 5MS rule.	TWG	Oct-20
Aggregations	Considerations include: location, SCADA/non-SCADA type, operational forecasting impact (where forecasting is performed in in zones), any NSP concerns	TWG	Aug-20
	Overview of process and capability	WDR CG	Sep-20
	Detailed implementation (once detail has been confirmed)	WDR CG	May-21
Settlement tech specs	Will allow retailers to build reconciliation systems if desired	Info session	Mar-21
NMI upload interface	Participant facing interface, feedback from WDR CG/TWG encouraged	WDR CG	Oct-20
Retailer access to DRSP customer data	Includes access to baseline parameters and dispatch data	TWG	Oct-20
Procedural updates	Ongoing updates via WDR CG	WDR CG	ongoing
Market trial	Possibility to be confirmed, engage WDR CG early 2021 to discuss options and practicalities	WDR CG	Feb-21

# Suggested future discussion topics (3/3)

## Discussion:

- How complete is the list of WDR topics for discussion with participants?
- How suitable is the suggested discussion forum and timing for each topic?
- What other topics or issues do members wish to have on future WDR CG agendas?



Please also provide agenda suggestions at any time to [WDR@aemo.com.au](mailto:WDR@aemo.com.au)

# Upcoming WDR CG meetings

Meeting	Meeting Date
WDR CG #3	Tue 18 Aug 20
WDR CG #4	Tue 22 Sep 20
WDR CG #5	Tue 20 Oct 20
WDR CG #6	Tue 17 Nov 20
WDR CG #7	Tue 15 Dec 20

# WDR and dispatch

Basilisa Choi and Ross Gillett

# Participation in central dispatch

To participate in central dispatch, DRSPs:

- May need to provide real-time metering (SCADA) - depending on capacity and location
- Must provide systems and processes to manage bidding, dispatch and compliance, including interfaces with AEMO's market systems
- Must have 24/7 operational capability

# WDR Bidding and Dispatch

## Bidding

- Submit 5min bids
- Separate DUIDs/bids for WDRU and ASL

## NEMDE process

- Determines dispatch and pricing
- No co-optimisation between WDRU Energy and ASL FCAS

## Dispatch

- Dispatch Target issued every 5min
- WDRU must follow dispatch instructions

NEMDE	NEM dispatch engine
WDRU	Wholesale demand response unit
ASL	Ancillary service load
FCAS	Frequency control ancillary service

# WDRU Bid

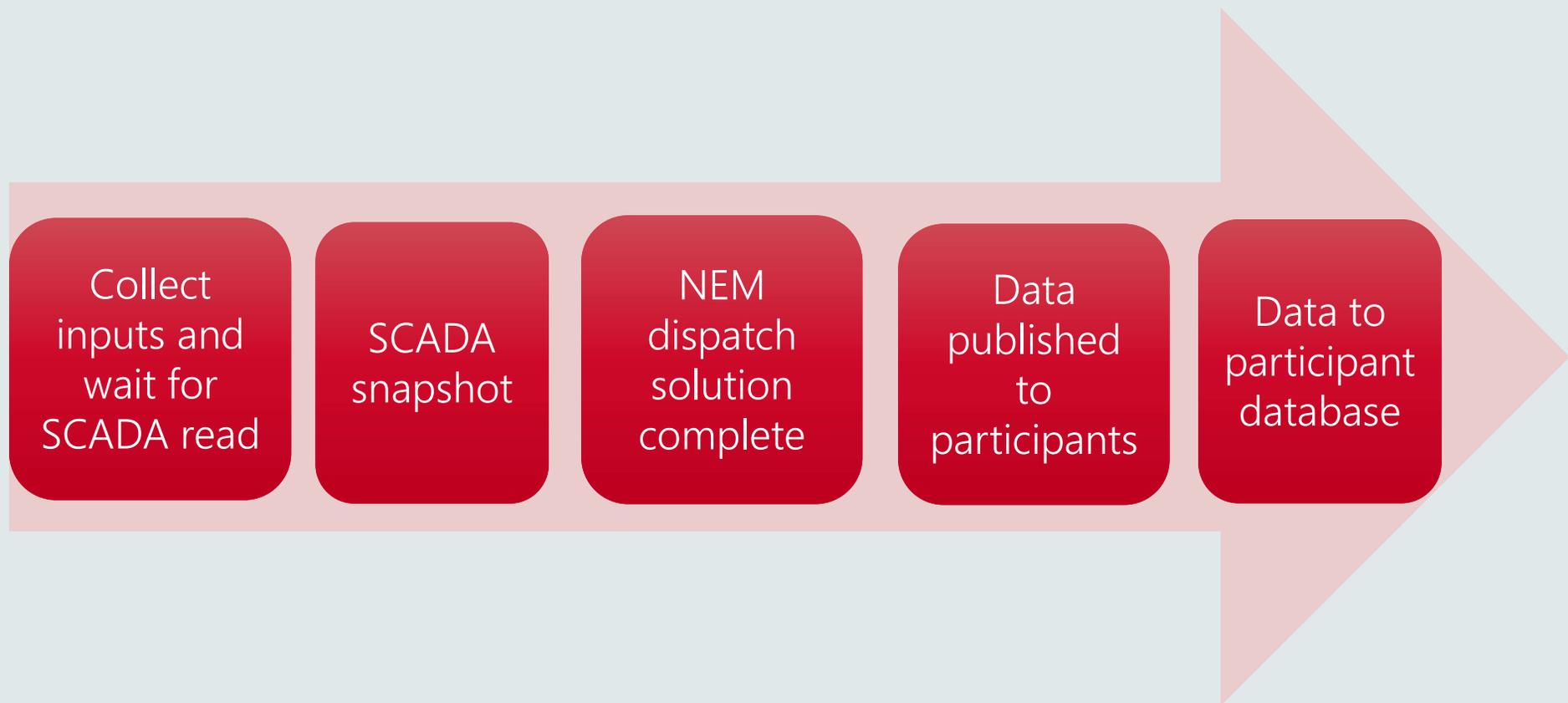
## Bid Structure

- 5min Bids (288 intervals per day)
- Same as the scheduled unit bid structure
  - Max Avail, PASA Avail
  - 10 Price Bands – Band Price & Band Avail
  - Ramp up/down
  - Rebid reason
  - (Optional) Daily Energy Limit, Fixed Load, Fast Start Inflexibility Profile (FSIP)

## Bid Validation

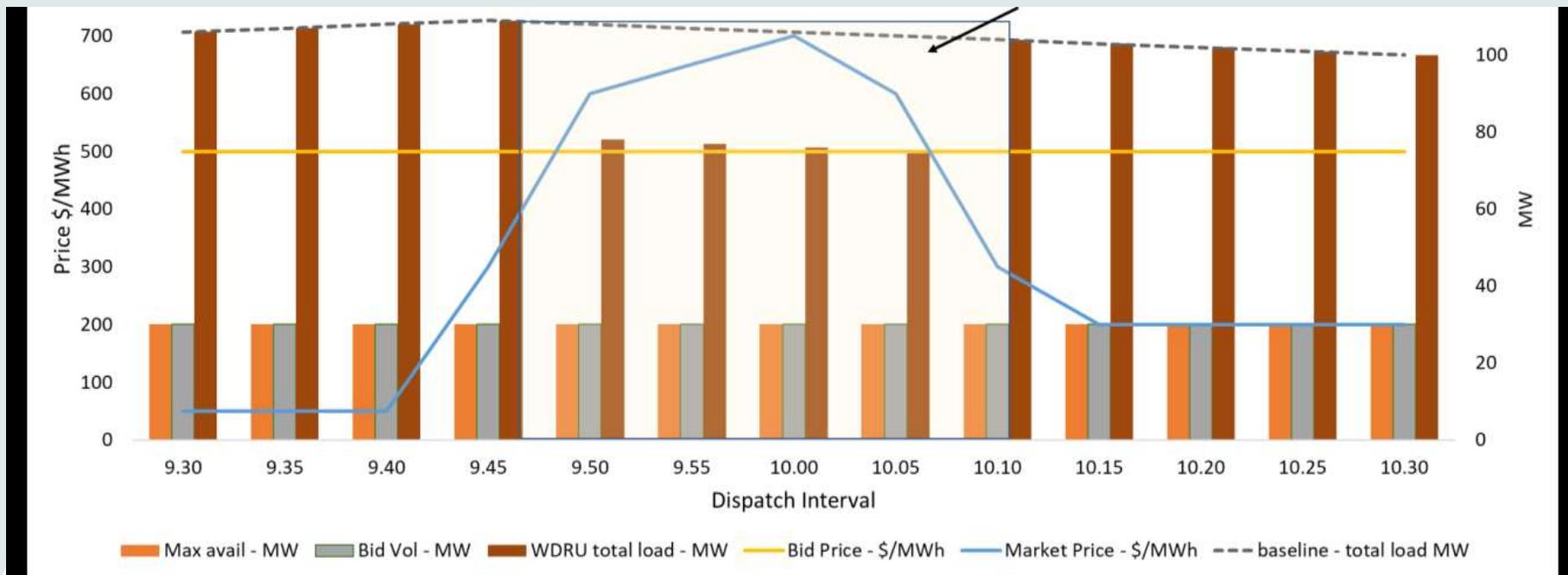
- Mostly same as the scheduled load bid validation. Except no minimum ramp rate requirement for WDRU - might be handled via a procedure rather than a system change.

# Dispatch Process



# WDRU Dispatch

- **Bid price:** market price at or above which the WDRU reduces consumption by the bid volume. When this occurs (yellow shaded area), WDRU reduction target goes from zero to 30 MW
- **WDR total load:** DRSP reduces consumption of responsive component of WDRU to achieve reduction target
- **Baseline total load:** AEMO determines post-event as counterfactual for settlement and dispatch performance. Good dispatch performance and baseline outcomes will show a WDRU reduction in metered consumption of 30 MW



# Dispatch Instruction

- Dispatch Target (MW) issued via MMS file

C	NEMP.WC	DISPATCHIS	AEMO	CSENERGY	#####	01:25:08	3.17E+08	DISPATCH	###								
I	DISPATCH	CONSTRAINT	5	SETTLEME	RUNNO	CONSTRAI	DISPATCH	INTERVEN	RHS	MARGINA	VIOLA	LAST	DUID	GENCONID_EFFE	GENCO		
D	DISPATCH	CONSTRAINT	5	#####	1	#KPP_1_E	2.02E+10	0	745	0	0	###	KPP_1	#####			
I	DISPATCH	UNIT_SOLUTION	2	SETTLEME	RUNNO	DUID	TRADEYTP	DISPATCH	INTI	CONNECTI	DISPA	AGC	INITIALMW	TOTALCLEARED	RAMPC		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	CALL_B_1	0	2.02E+10	0	QCAB1	0	1	329.6	330	2		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	CALL_B_2	0	2.02E+10	0	QCAB2	0	1	339.4	340	2		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	GSTONE1	0	2.02E+10	0	QGLD1	0	1	151.025	150	1		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	GSTONE2	0	2.02E+10	0	QGLD2	0	1	151.375	150	1		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	GSTONE3	0	2.02E+10	0	QGLD3	0	1	149.975	150	3		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	GSTONE4	0	2.02E+10	0	QGLD4	0	0	90.125	85.175	5		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	GSTONE5	0	2.02E+10	0	QGLD5	0	1	162.4	187.39999	3		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	GSTONE6	0	2.02E+10	0	QGLD6	0	1	150.675	150	2		
D	DISPATCH	UNIT_SOLUTION	2	#####	1	KPP_1	0	2.02E+10	0	QBRA4K	0	0	0	0	239		
I	DISPATCH	OFFERTRK	1	SETTLEME	DUID	BIDTYPE	BIDSETTLE	BIDOFFER	LASTCHANGED								
D	DISPATCH	OFFERTRK	1	#####	CALL_B_1	ENERGY	#####	#####	###								
D	DISPATCH	OFFERTRK	1	#####	CALL_B_1	LOWER5M	#####	#####	###								
D	DISPATCH	OFFERTRK	1	#####	CALL_B_1	LOWER60	#####	#####	###								
D	DISPATCH	OFFERTRK	1	#####	CALL_B_1	LOWER6SI	#####	#####	###								

- Data uploaded to MMS Data Model table

SETTLEMENTDATE	RUNNO	DUID	TRA	DISPATCHINTERVAL	INTEI	CONNEC	DISPA	AGCS	INITIALMW	TOTALCLEARED	RAM
1/01/2020 01:30:00	1	CALL_B_1	0	20191231258	0	QCAB1	0	1	329.60001	330.00000	
1/01/2020 01:30:00	1	CALL_B_2	0	20191231258	0	QCAB2	0	1	339.39999	340.00000	
1/01/2020 01:30:00	1	SETTLAMA	0	20191231258	0	TCF11	0	0	0.00000	0.00000	

# WDR Dispatch Compliance

- Compliance with the NER is the responsibility of individual participants and is monitored by the Australian Energy Regulator.
- Breaches of the NER can result in civil penalties or other compliance consequences
- AEMO will not monitor WDRU dispatch compliance in real-time → risk of immediate impacts on frequency and local voltage control
- AEMO mitigates risk by:
  - Post-event dispatch compliance and non-compliance notification to DRSP
  - DRSP reduces bid Max Avail until non-compliance addressed

# WDRU in PASA

- AEMO uses PASA to assess adequacy of capacity reserves over next week, in accordance with SO\_OP3703 – Short Term Reserve Management
- WDRU contribute to capacity reserves based on bid Max Avail and PASA Avail
- WDRU capacity reserves are limited by
  - security constraints
  - bid daily energy limit (optional)
- AEMO can contract with DRSP for WDRU scheduled reserves under the RERT arrangements

# More Information

- [Wholesale Demand Response Mechanism – High-level Design](#)
- [Spot market operations timetable](#)
- [Operating procedures](#)
- [Fast Start Inflexibility Profile Process Description](#)
- WDR program procedure development via WDR-CG

# General questions

Ruth Guest

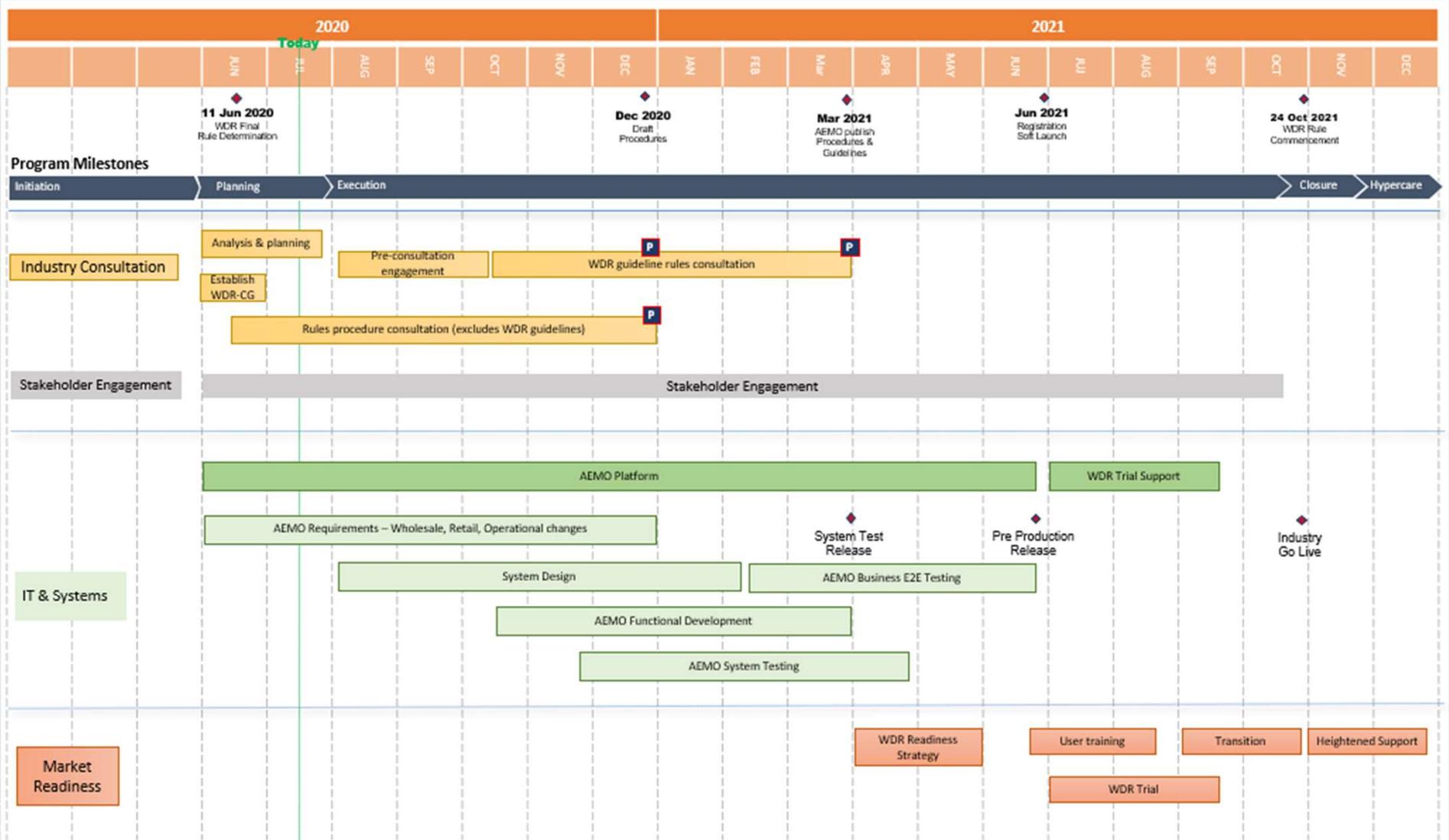
Thank you for your  
participation!

# APPENDIX A

## Project schedule

# Program overview (DRAFT)

\*\*Current as of 15 Jul 20\*\*



For Information: WDR = Wholesale Demand Response

P Publish    Milestone Working group meeting

For detailed meeting schedule and agendas, see AEMO's Stakeholder Relations Website

# APPENDIX B

## Procedure changes

# Settlements and prudentials procedures (1)

Affected procedures*	Impact
Credit Limits Procedures	TBD: system impact may be minimal, but depending on how we treat prudential requirements for DRSPs procedural/process impacts may be higher.
NEM Settlement Estimates Policy	Low: process impact/terminology update only, no systems impact.

\*AEMO may include additional procedures if required.

Approach - Credit Limits Procedures		Indicative key dates
Overall approach	<ul style="list-style-type: none"> <li>Rules consultation</li> <li>2 consultation rounds</li> </ul>	Jul to Dec 20
Considerations/ issues	<ul style="list-style-type: none"> <li>What is the appropriate level of credit support for DRSPs given negative DR in Rules?</li> <li>If credit support requirements for DRSPs &gt; \$0, how will DRSPs be integrated into current procedures/processes?</li> <li>Are there any consequential changes to credit support requirements/processes for retailers?</li> </ul>	
Pre-consultation	Discuss high-level approach with WDR CG	Jul to Dec 20

No change from WDR CG #1

# Settlements and prudentials procedures (2)

Approach - NEM Settlement Estimates Policy		Indicative key dates
Overall approach	<ul style="list-style-type: none"> <li>Rules consultation</li> <li>1-2 consultation rounds (TBC depending on complexity of updates)</li> </ul>	Jul to Dec 20
Considerations/ issues	Terminology update only.	
Pre-consultation	Most likely not required.	

Stage	Indicative key dates
Consultation paper	Late Aug 20
Round #1 consultation	Mid Oct 20
Draft procedures	Mid Nov 20
Round #2 consultation	Late Nov 20
Final procedures	Mid Dec 20

No change from WDR  
CG #1

# Retail procedures

Approach		Indicative key dates
Overall approach	<ul style="list-style-type: none"> <li>Rules consultation</li> <li>2 consultation rounds</li> </ul>	Jul to Dec 2020
Considerations/issues	Bundling consultations with other market changes Packaging procedures	
Pre-consultation	Electricity Retail Consultative Forum (ERCF)	Meetings held once a quarter

Stage	Indicative key dates
Consultation paper	TBA
Round #1 consultation	TBA
Draft procedures	TBA
Round #2 consultation	TBA
Final procedures	TBA

Dates being reconsidered in light of new 5MS/GS commencement dates. Dates will be confirmed at WDR CG #3 in August

# B2B procedures

Affected procedures*	Impact
B2B Procedure: Meter Data Process	Low: inclusion of DRSP as a B2B party, PMD transaction

\*AEMO/IEC may include additional procedures if required.

Approach		Indicative key dates
Overall approach	<ul style="list-style-type: none"> <li>Rules consultation</li> <li>2 consultation rounds</li> </ul>	TBA – IEC process
Considerations/issues	<ul style="list-style-type: none"> <li>IEC has governance over B2B procedures.</li> <li>IEC briefed at the last meeting (May)</li> </ul>	
Consultation	<ul style="list-style-type: none"> <li>Information Exchange Committee</li> <li>B2B Working Group</li> </ul>	IEC meets each quarter.

Stage	Indicative key dates
Consultation paper	TBA
Round #1 consultation	TBA
Draft procedures	TBA
Round #1 consultation	TBA
Final procedures	TBA

AEMO has written to IEC asking that the B2B procedure change is made. IEC will consider at their next meeting in September

# System operations procedures

Affected procedures*	Impact
Power System Security Guidelines (SO_OP_3715)	Low: procedural only
Intervention, Direction and Clause 4.8.9 instructions (SO_OP_3707)	Low: include an ancillary service load in the definition of scheduled plant.
Spot Market Operations Timetable	Low: DRSP's obligation and timeline, AEMO's obligation to publish information in relation to WDR

Approach		Indicative key dates
Overall approach	<ul style="list-style-type: none"> <li>Rules consultation</li> <li>1 or 2 consultation rounds</li> </ul>	Jul to Dec 2020
Considerations/issues	If changes are minor or administrative, may only require single round of consultation	
Pre-consultation	NEM Wholesale Consultative Forum	

\*AEMO may include additional procedures if required.

Stage	Indicative key dates
Consultation paper	TBA
Round #1 consultation	TBA
Draft procedures	TBA
Round #2 consultation	TBA
Final procedures	TBA

Dates being reconsidered in light of new SMS/GS commencement dates. Dates will be confirmed at WDR CG #3 in August

# Demand-side participation information guidelines

Affected procedure*	Impact
Demand Side Participation Information Guidelines	<b>Low:</b> terminology updates and minor additions to data collection requirements to allow WDR forecasts to be developed for use in MTPASA and ESOO.

Approach		Indicative key dates
Overall approach	<ul style="list-style-type: none"> <li>Rules consultation</li> <li>2 consultation rounds</li> </ul>	July to Dec 20
Considerations/ issues	<ul style="list-style-type: none"> <li>Requesting future DSP to be tagged as likely WDR source to help forecasting WDR for MTPASA/ESOO.</li> <li>The consultation will be bundled with changes relating to RRO and will consider rationalising with DER register data collection to ensure AEMO capture all the information required, but only once between the two processes.</li> </ul>	
Pre-consultation	Forecasting Reference Group	26 Aug 20

Stage	Indicative key dates
Consultation paper	Late Jul 20
Round #1 consultation	Mid to late Aug 20
Draft guidelines updates	Mid Sep 20
Round #2 consultation	Early Oct 20
Final guidelines	Late Oct 20

Dates will be confirmed at WDR CG #3 in August, along with a summary of issues raised in the consultation paper.

