MEETING RECORD

MEETING:	Wholesale Demand Response Guidelines Technical Working Group (WDRG TWG)
DATE:	Monday, 12 October 2020
TIME:	1:00pm – 4:20pm
LOCATION:	WebEx only
MEETING NUMBER	#02

ATTENDEES:

NAME	COMPANY
Greg Ruthven	AEMO
Aurel Griesser	AEMO
Ben Blake	AEMO
Emily Brodie	AEMO
Katalin Foran	AEMO
Robbie Manolache	AEMO
Ruth Guest	AEMO
Stephen Humphries	AEMO
Tom-Kelly Spanner	AGL
Bridgette Carter	Bluescope
Damian Edwards	CQ Energy
Robert Flanagan	Electricity Exchange
Claire Richards	Enel X
Joey Basile	Enel X
Michael Burlace	Enel X
Georgina Snelling	EnergyAustralia
Nicholas Giles	EnergyAustralia
Ben Pryor	ERM Power
Alex Leemon	Flow Power
David Headberry	Major Energy Users (MEU)
Craig Keenan	Origin Energy
Frank Ochel	Origin Energy
Anna Livsey	PIAC
Andrew Ely	Viotas
Michael Zammit	Viotas

NOTE: some attendees who joined through WebEx and phone may not have been identified. Please advise via email to WDR@aemo.com.au if you attended the meeting but have not been noted above.

Disclaimer - This document provides an overview of the main points of discussion at an industry forum convened by AEMO on 12 October 2020 to provide information and invite perspectives and feedback on matters relating to the development of the Wholesale Demand Response (WDR) guidelines. Readers please note that:

- This document is a summary only and is not a complete record of discussion at the forum.
- For presentation purposes, some points have been grouped together by theme and do not necessarily appear in the order they were discussed.
- The views expressed at the forum and reflected here are not necessarily those of AEMO.

1. Welcome (G. Ruthven, slides 1- 5)

Attendees were welcomed to the WDRG TWG meeting and the agenda was confirmed. AEMO noted this meeting will be recorded for the purposes of taking notes.

AEMO explained that it is interested to hear stakeholder input through the development of the WDR guidelines, so had included stakeholder questions in the slides to encourage input. It noted that stakeholders had indicated a preference for finalising the WDR guidelines as early as possible, and accordingly requested that members please actively raise issues during the meeting ahead to allow for consideration prior to the publication of the Issues Paper on 22 October.

2. Notes, actions and feedback from previous meeting (G. Ruthven, slides 6-10)

The draft meeting notes from WDRG TWG meeting #1 were endorsed by the WDRG TWG and will be published as final on the AEMO website.

3. Matters carried over from TWG #1 (G. Ruthven, slides 11- 18)

AEMO provided updates to stakeholders on its proposals in respect of conditions for classification and aggregation of WDR units (WDRUs), and the process for setting the maximum responsive component (MRC).

MEU enquired as to why it was considered necessary to exclude loads that are spot price exposed from the WDR mechanism (WDRM), suggesting that this could exclude many potential WDR participants, and asked how AEMO would determine that a load was spot price exposed. MEU suggested that the majority of spot price exposure was likely to occur at low prices.

AEMO responded that the WDR rules made by the AEMC included provisions preventing spot price exposed loads from bidding into the market, noting that this decision was related to the WDR settlement model, whereby the retailer funds the payment to the Demand Response Service Provider (DRSP), and was intended to avoid ‘double dipping’. AEMO indicated that it would require a DRSP applying to classify a load as a WDRU to provide a declaration that it does not have spot price exposure. It also noted that the AEMC had defined ‘spot price exposed’ in the WDR rules.

Flow Power noted that spot price exposure was discussed during the WDR rule consultation process. Flow Power had particularly raised that the 'make whole' settlement process would be messy for a spot price exposed customer. It also indicated that many customers already respond to high-price events due to spot price exposure and are already providing the demand response that the WDRM is targeting.

Viotas asked whether WDR providers were to be compensated for the benefit they provide in reducing network losses. AEMO advised that WDR settlement will occur at the relevant connection point, with prices translated from the regional reference price by the applicable loss factors; and that losses are also accounted for by the dispatch engine when it seeks to balance supply and demand and set marginal prices.

Bluescope enquired about how a load would participate where it had a number of different load blocks behind a single NMI that could be activated at different times and/or prices. AEMO responded that a DRSP can submit up to ten price-quantity pairs in respect of a dispatchable unit, with different load blocks triggered at different prices, and may (depending on the characteristics of the load) be able to use inflexibility profiles to reflect the response timing. When it comes to settlement, AEMO does not need to distinguish between different bid prices as all energy settlement is based on marginal pricing.

4. Telemetry and communications requirements (B. Blake, slides 19-22)

AEMO described its proposed telemetry and communications requirements for WDRUs.

Enel X asked what were the characteristics of "weaker areas of the power system". AEMO responded that these areas are generally distant from the strongly connected areas of the grid (e.g. typically major population centres) and may exhibit certain power system conditions, such as frequently binding thermal network constraints or system strength issues.

Enel X and MEU questioned how WDR could contribute to system security issues, particularly system strength. Enel X suggested that it would be important to articulate the justification for requiring telemetry and provide clarity on the definition of "weaker areas of the power system" in the WDR guidelines. AEMO conceded that system strength was not likely to be affected by WDR and agreed that describing the power system security assessment in the WDR guidelines would provide certainty to stakeholders.

AEMO enquired why a DRSP may choose not to aggregate WDRUs behind a single transmission node. Flow Power described customers near state boundaries that may be physically located in one region but electrically connected to the neighbouring region.

AEMO also responded to telemetry-related questions that had been provided by a stakeholder in advance of the meeting. AEMO's Power System Data Communications Standard[1] specifies the quality requirements for telemetry data, which answers some of the questions but is silent (i.e. technology-agnostic) on specific matters of implementation. AEMO also advised that it was going to be reviewing this standard in coming months and that, while the review was not specifically triggered by the WDRM, AEMO would be considering the introduction of the WDRM in conducting the review. AEMO also committed to provide more fulsome answers to the questions in the months ahead.

ACTION 02.04.01: AEMO to provide more fulsome answers to stakeholder telemetry questions on slide ~~13~~22.

[1] Available at https://aemo.com.au/en/energy-systems/market-it-systems/nem-guides/power-systems.

5. Regional thresholds for increased visibility (R. Manolache, slides 23-29)

AEMO explained its proposed methodology to setting regional thresholds for increased WDR visibility.

MEU expressed concern that conservatism in determining this methodology could lead to additional conservatism in demand forecasting, with potential impacts on the Retailer Reliability Obligation, and could lead to increased costs for consumers. AEMO explained that the methodology relates to managing the additional short-term forecasting uncertainty that is expected to be introduced by a lack of real-time WDRU visibility. MEU indicated that there would be no issue if the impacts were confined to short-term forecasts (i.e. pre-dispatch and ST PASA) and did not impact MT PASA. AEMO advised that it would confirm that MT PASA was unlikely to be affected.

ACTION 02.05.01: AEMO to advise on any impacts of its proposed methodology on MT PASA forecasts.

Origin asked what action AEMO would take if a regional threshold was exceeded. AEMO responded that it would not allow the threshold to be exceeded, by requiring telemetry to be provided before approving the classification of new WDRUs that would otherwise push the volume of non-telemetered WDR above the threshold. AEMO also advised that it would provide as much transparency as possible about upcoming revisions to the thresholds.

6. Baseline processes (K. Foran and A. Griesser, slides 30- 45)

AEMO described its proposed process for developing new baseline methodologies (BMs) and for applying a BM to a WDRU. It also discussed baseline compliance and explained the concepts of accuracy and bias as they relate to baselines.

AEMO explained that it was only planning for a single BM at the commencement of the WDRM and sought stakeholder advice on the design and characteristics of future BMs. AEMO indicated that it may be able to design its baseline systems in such a way that certain BM designs or characteristics could be added more cost effectively and quickly in future.

In response to a question from AGL, AEMO advised that there would not be an option for a BM to be commercial in confidence.

Viotas noted that it will be important to develop different BMs that are well-suited to different load shapes, including accounting for some loads that have particular day-of-week profiles (e.g. shopping centres). For very flat loads, simpler BMs may be appropriate, such as a flat line from the pre-event and post-event load (perhaps two hours before and after the period of dispatch). AEMO advised that it envisaged having several BMs in future, but that implementation costs would make it difficult to justify the development of a BM for a single load. It also advised that the AEMC's design of the WDRM was premised on participating loads being predictable, due to the reliance on baselines. Viotas expressed interest in an offline meeting.

ACTION 02.06.01: AEMO and Viotas to discuss future BM options.

MEU advised that it is important for AEMO to understand how end customers use power and suggested that AEMO contact customers to gather information. AEMO responded that the RERT program had enabled information such as this to be gathered for a range of customers.

In response to questions from EnergyAustralia and AGL, AEMO confirmed that a BM is applied to an individual connection point, not an aggregation of WDRUs, and that a single

WDR dispatchable unit ID (DUID) could contain loads using different BMs. AEMO noted that the DRSP would need to estimate the sum of the baseline quantities for an aggregated DUID in order to determine the available capacity for bids and for the telemetry data (where applicable).

Flow Power asked whether the CAISO 10-of-10 BM, if applied to both weekends and weekdays, was effectively 14-of-14 if all days chosen; and whether a weekend/public holiday BM was effectively 4-of-4? AEMO confirmed that it was likely 10 of 10 calculation days as a maximum, reducing to, for example, 4 of 4, for weekends .

AGL enquired whether AEMO would consider removing the cap on the 'day-of' baseline adjustment that is used in the RERT mechanism, and suggested that it was perverse to have an upper limit but not lower limit. AEMO advised that adjustment methodologies are being considered as part of the baseline analysis being conducted by an external consultant.

Several stakeholders supported the exclusion of whole days of WDR activity from baseline calculations, rather than just excluding the intervals of WDR dispatch. In particular, it was noted that different loads may restore demand in different ways following a dispatch event. AEMO noted that exclusion of whole days may require the baseline calculation to look back further into the past, though this may not be a material issue unless WDR dispatch became more frequent.

Bluescope suggested that the baseline analysis for RERT occurs over 100 days, which seems too long, and suggested that 45 days may be a better period for the WDR Predictability of Load (PoL) analysis.

In response to a comment from MEU on the workability of baseline compliance testing, AEMO advised that the PoL analysis would be systemised and that DRSPs would be provided with reconciliation data. MEU suggested that it will important to avoid excessive complexity and participation costs for DRSPs. Bluescope indicated that DRSPs would need to be able to replicate the baseline calculations.

MEU expressed concern that exclusion of loads from the WDRM due to baseline non-compliance may limit the number of participants in the mechanism. AEMO responded that load predictability was a core premise of the WDR rules made by the AEMC, particularly given the chosen settlement model (settlement of individual connections points with WDR payments funded by the retailer).

On the topic of baseline compliance test frequency, MEU suggested that annual testing would be too infrequent, and that seasonal testing may make more sense. EnergyAustralia suggested that the test frequency was essentially a question for AEMO, to balance the costs of performing the testing against the degree of confidence in baseline accuracy. AEMO responded that the baseline compliance testing would be automated so would have limited cost. EnergyAustralia indicated that overly frequent testing could be problematic if it resulted in a WDRU falling in and out of baseline compliance on a daily or weekly basis. Viotas suggested that 6-monthly tests (before summer and winter) should be the minimum frequency, while EnergyAustralia suggested that 6-monthly tests should be sufficient.

In response to a question from Viotas, AEMO advised that the baseline compliance test is a desktop assessment based on statistical analysis.

MEU suggested that certain customers may have volatile load types (e.g. cold stores, shopping centres) that have difficulty fitting with the baseline compliance framework but are capable of providing demand response, and suggested that the impact of temperature could be accounted for in the baseline compliance testing. AEMO responded that the 'day-of' adjustment in the baseline methodology itself was designed to scale the baseline up or down

according to the conditions on the day, particularly temperature. However, the AEMC's design of the WDRM was premised on participating loads being predictable, due to the reliance on baselines.

ACTION 02.06.02: TWG to provide any further feedback on stakeholder questions related to baselines.

7. WDR data access and publication (R.Guest, slides 47-51)

AEMO explained its proposed approaches for sharing baseline data and other WDR data with DRSPs and retailers, and described the WDR information that will be publicly available in accordance with the NER.

Viotas asked whether there would be any charges for DRSPs for the receipt of meter data, and whether the DRSP could work through a single Metering Data Provider (MDP) or would need to deal with the customer's MDP. AEMO responded that it understood that the DRSP would need to interact with the customer's MDP, and that the DRSP was entitled to the data but under a commercial arrangement in much the same way that an LNSP can access metering data.

No stakeholder responded to the questions posed within the slides, which related to when an updated MRC value would take effect and adjustments to the DUID-level MRC value.

ACTION 02.07.01: TWG to provide any feedback on stakeholder questions.

8. Next steps (G. Ruthven, slides 52-56)

AEMO provided a summary of the material discussed at the two TWG meetings, the schedule for consultation on the WDR guidelines, and the expected agenda for the next TWG meeting in November. AEMO also advised stakeholders that it was progressively updating the WDR section on its website and welcomed any feedback.

9. General questions and close (G. Ruthven, slides 57-58)

Attendees were thanked for their attendance and level of engagement, and the meeting was closed.

ACTION ITEMS RAISED AT WDRG TWG MEETING #02

ITEM	TOPIC	ACTION REQUIRED	RESPONSIBLE	DUE BY
02.04.01	Telemetry and communications requirements	AEMO to provide more fulsome answers to stakeholder telemetry questions on slide 13	AEMO	TBA
02.05.01	Regional thresholds for increased visibility	AEMO to advise on any impacts of its proposed methodology on MT PASA forecasts	AEMO	Nov 20
02.06.01	Baseline processes	AEMO and Viotas to discuss future BM options	AEMO	Nov 20
02.06.02	Baseline processes	TWG to provide any further feedback on stakeholder questions related to baselines	TWG	Nov 20
02.07.01	WDR data access and publication	TWG to provide any feedback on stakeholder questions	TWG	Nov 20