DRAFT MEETING RECORD

MEETING: WDR/DNSP Workshop

DATE: Friday, 11 December 2020

TIME: 10:30am – 12:30pm

LOCATION: WebEx only

ATTENDEES:

Ruth Guest (Chair)	AEMO
Darren Spoor	AEMO
Emily Brodie	AEMO
Greg Ruthven	AEMO
Hayley George	AEMO
Chris Cormack	AEMO
Chris Espinoza	AEMO
Rachel Rundle	AEMO
Alida Jansen van Vuuren	Ausgrid
Jessica Hui	Ausgrid
Dino Ou	Endeavour Energy
Dor Son Tan	Energy Networks Australia
Christina Green	Energy Queensland
Peter Wong	Jemena
Chong Ong	TasNetworks
Edward Sellwood	Essential Energy
Bill McHugh	Ergon Energy
Claire Richards	EnelX
David Grey	Energy Queensland
Elisia Reed	SA Power Networks

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 11 December 2020 to provide information and invite perspectives and feedback on matters relating to Wholesale Demand Response implementation. 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 (R. Guest, slides 1- 5)

Attendees were welcomed to the meeting. AEMO noted that the meeting was being recorded for the purposes of preparing meeting notes.

2. Purpose and objectives (R. Guest, 6-7)

AEMO noted that this second workshop would continue exploring the WDR impacts on DNSPs. It set out the objectives for the session, namely:

- Endorse meeting notes from prior workshop
- Respond to topics and action items that were raised at the first DNSP meeting on 26 October 2020
- Discuss aspects of the draft WDR guidelines that affect DNSPs
- Establish next steps

There were no questions or comments from attendees on this agenda item. Meeting notes were considered to be endorsed as final and will be published on the website.

3. Responses to actions from previous meeting (R. Guest, slides 18-22)

AEMO provided responses to the 11 actions raised in the previous workshop (26 October 2020).

In relation to Action #5, AEMO provided an overview of current and future work it was undertaking or contributing to that would see AEMO and DNSPs working together to encourage greater demand side participation. It noted that WDR is a transitory policy designed to bridge a gap in the lead up to the Energy Security Board's proposed 'two sided market', and therefore the WDR project's scope was limited.

In relation to Action #9, Energy Queensland noted that DNSP resource availability for providing timely information was dependent on the frequency of aggregation applications e.g. responding once a year was more manageable than 10 times a week. It might be appropriate to establish a materiality level above which DNSPs could be consulted.

Also in relation to Action #9, Ausgrid noted that the summary didn't adequately capture its feedback and provided this to the group:

> *The Weaker/Stronger concept refers to system strength which is normally measured by the fault level at the connection point, it is more applicable to generator connections rather than load. It seems that this concept has not been used appropriately in the WDR space and could be misleading.*
>
> > *"congested" is not quite the right word… and is a term we use for other things... We …think a good way to describe it is areas with "voltage swing constraints".*
>
> *The step changes of load either increasing or decreasing will mainly impact voltage response, depending on the size of the step and the location of the change. For example, the volts could end up too high if too much load is removed too quickly from the DC/Zone/STS.*

It would be more efficient for network businesses to assess and provide AEMO with advice on WDR aggregations above a certain size (see last point below) than to provide enough network data for AEMO to do this assessment. This will also save AEMO from having to understand each DNSP's network data and configuration. It would be of value if a standard advice process is established between DNSPs and AEMO. We understand that DNSPs would be required to provide timely responses under this scenario but believe this could be managed.

Our initial position is that if the total potential WDR aggregation is below 10% of Zone load (or less than 5MVA) or 10-15% of STS load (or less then 20MVA), we should not expect any major issues. However, if the size is above these ranges and change rapidly, more detail voltage analysis will be required. It would be much more effective to manage this issue proactively during the application registration stage rather than reactively.

AEMO responded that this was good feedback and is being taken into consideration in the development of these concepts in the WDR Guidelines and our internal assessment processes.

ACTION 01: DNSPs to contact AEMO via wdr@aemo.com.au if they would like more information on current VPP and Distribution Marketplaces trials.

4. WDR Guidelines (G. Ruthven, slides 10-17)

AEMO provided an overview of timelines for the WDR Guidelines consultation:

- Issues paper published 22 October 2020
- Submissions due 27 November 2020
- Draft Report/Draft Guidelines published 14 January 2021
- Submissions due 12 February 2021
- Final Report/Final Guidelines published 25 March 2021

ENA and Energy Queensland noted that good visibility of WDR would enable better management of distribution networks. AEMO agreed and reiterated that:

- This was the subject of the current and future work described earlier that would see AEMO and DNSPs working together to facilitate greater demand side participation
- WDR is an interim mechanism with limited implementation scope
- Visibility issues are best handled in the two-sided market policy development process.

4.1. Provision of WDRU data

AEMO set out the NER and NEL provisions pertaining to participants' access to confidential WDR data. It noted that the clause that enables data sharing in the NEL sets a high bar for AEMO to release data. However where there is genuine need and supporting evidence, AEMO would make sure that data could be available.

Endeavour Energy sought clarification of whether it was possible to link a DUID to a NMI. AEMO confirmed that in the NEM, a dispatchable unit ID (DUID) relates to a generator, scheduled load or WDRU etc. It explained that it was possible to provide this information if the bar for confidential information set in the NEL was met. AEMO will have this information as part of its classification and aggregation process.

Energy Queensland, supported by Ausgrid, explained that compared with DR today, WDR could create:

- Different and more synchronised behaviour in the NEM as well as potential changes in the expected performance of each load.
- A market (price) trigger for WDR that doesn't relate to local network conditions.

Energy Queensland identified lack of real-time WDR visibility (how much, where and when) as exacerbating the issues above. It also noted that the size of response, location and ramp rate for recommencing after the WDR event was critical information.

TasNetworks enquired about whether AEMO would know where the reduction would occur before dispatch. AEMO responded that it won't know in real time the individual NMIs that are dispatched within aggregations. However, at the aggregation approval stage AEMO would consider the potential impacts of the aggregation on the network. AEMO expanded on this point, saying that if an area is not congested, then the DRSP should be able to choose how to dispatch the NMIs in its aggregation. But if the network is congested, depending on network conditions and constraints management in real time, AEMO would likely decline aggregation, or approve separate or reduced aggregations. TasNetworks followed up with a question about the ability of DNSPs to receive WDRU standing data. AEMO noted that this was subject to the NEL requirement of protected information disclosure being necessary for:

- *the safety, reliability or security of the supply of electricity or the national electricity system*
- *the proper operation of the NEM*

TasNetworks asked if AEMO will have info down to NMI level and how it's aggregated. AEMO concurred, noting that DRSPs have the responsibility for dispatching NMIs within an aggregation to meet dispatch instructions, and AEMO only see which NMIs responded to the WDR event once it receives metering data.

Ausgrid explained that visibility of NMIs within aggregations was important so that it could understand how individual feeders would be impacted by WDR.

Endeavour Energy enquired whether an aggregation is limited to a single TNI. AEMO responded that this was not necessarily the case. There may be circumstances, for example in metropolitan areas, where an aggregation could satisfactorily be approved across multiple TNIs.

ENA asked whether each individual information disclosure would need to be assessed against the relevant NEL provision on a case-by-case basis, even within the same a network. AEMO replied that it is seeking arguments from the DNSPs to support the need to make data available and then seeking to establish the provision of data through the WDR Guidelines.

TasNetworks enquired about the anticipated duration of each WDR dispatch? AEMO explained that it didn't know and it would be subject to DRSP bids and the market clearing process. TasNetwork noted that long duration WDR events would be worrying for its network, particularly around ramp rates for restoration. It suggested that there would be fewer problems with load reduction than with load restoration in relation to any need to juggle feeders. AEMO asked about the time frame around decisions to change feeders.

TasNetworks responded that for local, unplanned problems in distribution network, these decisions were made at short notice. AEMO sought to clarify whether the issue was around avoiding network switching decisions in absence of complete picture. TasNetworks agreed, noting its concern about potential impacts from large WDR volumes combined with varying, price-driven duration and that non-market DR hasn't so far manifested as an operational problem. Energy Queensland added that load switching often occurred under summer and winter extremes.

ENA observed that distribution network control room operators make decisions based on historical knowledge. Therefore if loads are coming on and off without forewarning it adds another uncertainty factor. AEMO responded that there is also no forewarning if DR is provided through retailers.

4.2. WDRU classification

AEMO ran through its obligations in relation to classifying WDRUs for WDR participation, including its proposed approach to requiring telemetry for certain loads. TasNetworks noted that 5 MW (the threshold AEMO is considering for requiring telemetry) was a big volume for distribution systems. AEMO commented that it was worthwhile considering whether real-time visibility of WDRUs is strictly necessary, or whether DNSPs would already have sufficient visibility of the surrounding network.

AEMO stated that it needed to ensure that when setting requirements for WDRUs, that these requirements were reasonable and not seeking to fix legacy issues. Ausgrid responded that equally AEMO needed to be careful to not embed legacy issues into new schemes. Ausgrid further suggested that it needed visibility to appropriately set up system protections.

AEMO reminded the group that dispatch instructions were not always followed perfectly. It posed the questions: Does the error risk justify the telemetry cost? Is it significant enough to warrant real-time feed, or are DNSPs able to use standing data, ramp rates, dispatch etc to manage their networks?

Ausgrid replied that materiality is therefore important. Thinking about materiality will reduce the burden on the whole process as DNSPs would be able to check that their networks could deal with fluctuations and ramp rate requirements. It would be helpful for maintaining the reliability of system.

AEMO noted that the ramp rates will be at the DUID level and it doesn't have powers to establish ramp rates at the NMI/connection point level through the WDR classification process. It asked whether restrictions on ramp rate can be applied through connection agreement processes.

Essential Energy stated that ramp rates pose its most significant risk, being a regional DNSP. Having some control or understanding ahead of time can enable the network to prepare for or moderate the impacts of WDR.

AEMO enquired about whether DNSPs will be able to manage the scenario where DRSPs do not ramp the individual connection points at the DUID level in dispatch. For example, where there are 10 NMIs within an aggregation. Essential Energy noted that even where it had a connection agreement it may not be able to predict the WDR market interplay and impact on a specific day and it would be hard to cater for this scenario. Ausgrid suggested that DRSPs wouldn't intend for aggregations to have a negative impact on any network, so DNSPs should be able to have conversation with DRSPs and, for example, put ramp rates into batteries where there is a known issue. AEMO noted that during the WDR implementation it

could potentially facilitate this type of conversation between DNSPs and DRSPs if it would be helpful.

4.3. WDRU aggregation

AEMO explained its obligations and potential process for WDRU aggregation approvals, including options for DNSP involvement in/endorsement of aggregations. Ausgrid asked whether most of the WDR would come from existing customers. AEMO clarified that WDRUs have to be an existing load as it is unable to baseline without historic meter data i.e. AEMO would never be approving participation for a newly connecting load, therefore a connection agreement should already be in place.

Energy Queensland noted (and TasNetworks agreed) that an enquiry process for DRSPs, similar to the current connection enquiry process, is probably a reasonable approach but it would provide feedback.

5. General discussion and next steps (R. Guest, slides 26 - 27)

AEMO suggested that the group should reconvene in early 2021 during the consultation period for draft WDR Guidelines (between 14 Jan and 12 Feb 2021) and sought out alternative next steps from the group. Energy Queensland agreed with the approach.

ACTION 02: AEMO to provide all questions from today's session in a table form to facilitate DNSPs' responses.

ACTION 03: DNSPs to provide responses to AEMO's WDR Guidelines questions, preferably by COB Wed 16 December otherwise via the WDR Guidelines consultation.

6. Meeting close (R. Guest, slide 28)

Attendees were thanked for their attendance.

ACTION ITEMS RAISED

ITEM	TOPIC	ACTION REQUIRED	RESPONSIBLE	DUE BY
01	Responses to actions from previous meeting	DNSPs to contact AEMO via wdr@aemo.com.au if they would like more information on current VPP and Distribution Marketplaces trials.	DNSPs	At any time
02	Next steps	AEMO to provide all questions from today's session in a table form to facilitate DNSPs' responses.	AEMO	Complete
03	Next steps	DNSPs to provide responses to AEMO's WDR Guidelines questions, preferably by COB Wed 16 December otherwise via the WDR Guidelines consultation.	DNSPs	16 Dec 2020 or via the WDR Guidelines consultation (submissions due 12 Feb 2021)