AGL Energy Limited
ABN: 74 115 061 375
Level 24, 200 George St
Sydney NSW 2000
Locked Bag 1837
St Leonards NSW 2065
t: 02 9921 2999
f: 02 9921 2552
agl.com.au

AEMO – Wholesale Demand Response Guideline Consultation

via email: wdr@aemo.com.au

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AGL Response to AEMO Wholesale Demand Response Draft Guideline

AGL Energy (AGL) welcomes the opportunity to comment on AEMO's Wholesale Demand Response (WDR) Draft Guideline (draft guideline).

The draft guideline sets out the information required for potential WDR participants in accordance with cl 3.10.1 of the National Electricity Rules (NER), along with additional guidance for stakeholders.

Outlined below is our response to the proposed changes to the guideline from the initial WDR issues paper.

Requirement for the relevant Distribution Network Service Provider (DNSP) to endorse a proposed aggregation of WDR Units

The draft guideline outlines a new DNSP aggregation assessment requirement when the proposed aggregation includes WDR Units at or behind a single transmission node with an aggregate maximum responsive component (MRC) of 5 MW or greater.

We agree with AEMO's assessment that below 5MW an aggregated DUID is unlikely to raise system security concerns at the time of classification and should therefore not be subject to the DNSP assessment. The 5MW threshold provides sufficient certainty for demand response service providers (DRSPs) to build a portfolio without risk of delay or uncertainty of classification. However, for the reasons set out below we are concerned by both the role the DNSP will play in carrying out AEMO's system security responsibilities under the WDR framework, and the ultimate purpose of the DNSP assessment.

In considering the proposed DNSP assessment role, we consider AEMO should be cognisant of the following factors:

- The broader policy context regarding the role of the DNSP as potential Market Operator and System Operator as distributed energy resources become more prevalent and controllable.
- This would be a new role for a DNSP which would need to be clearly defined to ensure consistency and transparency of assessment across the 10 Distribution zones, achieve timeliness and certainty, and would need to align with broader regulatory arrangements for DNSPs. This is particularly important where a DRSP will need to engage with multiple DNSPs within a load forecasting area.
- The DNSP is increasingly using Demand Response for network support and non-network planning solutions. These assets may also be co-optimised for market dispatch through third party access arrangements.
- AEMO has an express role within the WDR framework, under the NER, with the exclusive responsibility to assess material system security impacts and undertake any necessary measures to mitigate these risks.

As set out in the draft guideline consultation paper, the DNSP may provide input with regard to three critical components:

1. assessment of a proposed aggregation would result in an endorsement or rejection of the proposed aggregation
2. advice of any restrictions that must be imposed on the aggregation, such as ramp rate limits, to ensure that the dispatch of WDRUs will not infringe the technical envelope.
3. advise AEMO of any constraints to be applied to the DUIDs in the central dispatch process

With regard to the first component, we do not consider it is necessary, or appropriate (given the factors outlined above) for the DNSP to make the aggregation classification decision. Rather the DNSP should be required to provide information to AEMO regarding the latter two components, i.e. DR unit performance and dispatch constraints. Whilst we agree with AEMO that the DNSP is best placed to assess risks to the network, we consider it should ultimately fall to AEMO as to how these risks may be managed either through the classification process or through central dispatch. The DNSPs role in the WDR mechanism should therefore be as a critical participant in providing information rather than a decision maker for DUID aggregations.

Ultimately AEMO's aggregation assessment centres on the performance of potential WDR unit(s) that constitute the aggregated DUID rather than the aggregation as a whole. In carrying out AEMO's system security obligations the key issue is not whether the aggregated DUID can be classified, but rather when and how the aggregated DUID can be dispatched given the concerns identified with one or more of the DR units.

This assessment of DR units is consistent with the broader approach AEMO will undertake with multiple DR units within a distribution network whether they are aggregated or individual DR unit DUIDs. As already noted, AEMO can also apply ramp rate limitations and constraints on DUIDs regardless as to whether the unit is aggregated.

With this in mind, we consider the primary issue is not whether a greater than 5MW aggregated DUID can be classified, but how this aggregated unit will be impacted if one of the DR units give rise to system security concerns, such as a dispatch constraint in certain circumstances and telemetry requirements. Given this impact, it would then be open to the DRSP to consider whether this initial aggregation still remains appropriate or whether there is an alternative classification of the DR units that optimises potential dispatch (such as two or more DUIDs).

This approach also acknowledges that an aggregated DUID material risk to system security is dynamic and may change over time from the time of classification as the circumstances change in how the network is used.

We propose that rather than an 'accept or reject' aggregation approach, the DRM guidelines should set out the process in which the above mentioned assessment will occur during the registration and classification process. In turn the guideline should clearly set out how an aggregation will be impacted should one or more DR units require ramp rate or dispatch constraints.

The proposed options for DNSP endorsement

In the draft guideline consultation paper, AEMO has outlined three potential options in how the DNSP could interact with AEMO's process to accept or reject an application to aggregate DR Units. Noting our discussion above regarding whether the issue is classification or the ultimate impact of a DR unit on the aggregate DUID, should AEMO consider the proposed 'accept or reject' framework is still necessary we consider option 2 is preferable. This option would require AEMO to liaise with the relevant DNSP to attain

all relevant information and advice to then undertake the system security assessment. In contrast to option 1, this option preserves the role of AEMO as the sole decision maker as to the appropriate measures necessary to address material risks to system security.

We note AEMO's concern that this option may be costly due to the need to develop a robust DNSP framework. However, we expect the even greater collective costs for DNSPs would also apply to option 1. Regardless as to whether it is AEMO or the DRSP engaging with the DNSP, there would still need to be a clear and transparent framework that ensures a consistent approach across all distribution zones. This is particularly important in circumstances where a DRSP is dealing with multiple DNSPs within a load forecasting area for potential aggregation.

Single load forecasting area requirement for aggregation

The draft guideline proposes aggregation of DR units may only include DR units within a single load forecasting area as set out in the Power System Operating Procedure – Load Forecasting (SO_OP_3710).

We support this approach and consider this will provide certainty as to how DRSPs may aggregate potential WDR units. We note the above mentioned procedure has been recently updated to clarify the meaning of 'load forecasting area', however for the purposes of clarity in the DRM guideline, the guideline should provide a an exact reference within the document given this is not a defined term in the procedure.

Telemetry and communication requirements for aggregation

The draft guideline proposes to relax the telemetry requirements for aggregated DUIDs above 5MW when the aggregate DUID does not materially impact power system security and therefore is not represented in constraints in central dispatch.

We support this approach and consider this appropriately treats aggregated DUIDs with the same logic as a collection of DR units with individual DUIDs within a load forecasting area that do not materially impact system security.

We note there are still telemetry requirements for individual or aggregated DUIDs where existing scheduled plant needs to be curtailed to manage power system conditions or AEMO considers telemetry is necessary to support power system security. As AEMO notes in the consultation paper, more accurate real-time observations of WDR dispatch performance may be critical where WDR Units or aggregations of WDR Units need to be represented in constraints in the central dispatch process.

Whilst we agree with this concept, as noted earlier in our submission, in the case of aggregated DUIDs a risk to system security may stem from only one DR unit, or a selection of the DR units, that constitute the DUID. In this case AEMO should consider if the telemetry requirements could only apply to the relevant WDR units rather than the entire portfolio of DR units that constitute the DUID, given the ultimate purpose of this requirement is to monitor performance of these particular DR units in real-time when constraints are binding. We acknowledge this is not how current aggregated DUIDs are monitored, however given the unique challenges of the WDR, AEMO should explore if this different approach is possible in these unique circumstances.

We also request AEMO provide guidance on how AEMO will validate SCADA feeds given the requested feed appears to relate to the DUID available capacity which is a theoretical value based on baselining NMI meter data, and therefore how AEMO will infer the impact of the DR relative to actual real-time metered data.

Regional thresholds of non-visible WDR units

The draft guideline also sets out how the regional thresholds for non-telemetered DR units will be calculated. As noted in the consultation paper, these thresholds are needed to limit risks of demand forecast errors resulting from erroneous real-time estimates of delivered demand response.

Whilst we consider these thresholds are appropriate at the initial stage of the commencement of the WDR mechanism, AEMO should consider if this threshold can be managed through the dispatch process rather than the initial registration and classification of non-telemetered WDR units.

We consider AEMO's concern is not how much non-telemetered capacity is registered but rather the potential capacity that may be dispatched at any given time in a region. Consequently, AEMO could place a limit on the amount of non-visible WDR NEMDE can dispatch. This would ensure that when the threshold is met, the DR units dispatched would be based on least cost bids to the market rather than when the unit was registered.

If you have any queries about this submission, please contact Kyle Auret on (03) 8633 6854 or KAuret@agl.com.au.

Yours sincerely,

Chris Streets

Senior Manager Wholesale Markets Regulation