5th February 2021

Australian Energy Markets Operator
Wholesale Demand Response Scheme
Baselines Eligibility Compliance and Metrics Policy – Consultation
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Green Energy Trading (GET) is one of Australia's largest originators of environmental credits and operates across a range of renewable energy, energy saving and carbon reduction schemes and provide a range of services to energy solution providers in the residential, commercial and large energy users sectors.

A large array of equipment (air-conditioning, refrigeration, batteries, BMS, etc) have embedded demand response capability both at commercial and residential applications with potential to provide significant peak demand reductions now. With forward capability being supported through such measures including:

- The COAG Energy Council recently agreed to introduce mandatory demand response capability requirements for a range of smaller appliances with effect from no later than July 2025, with significant further peak demand potential (**3,400 MW** by 2036) ***provided*** there is sufficient activation of this inherent capability is achieved ***which requires*** an effective and accessible WDR scheme – Ref [1].
- The NSW Energy Security Target and Safeguard includes establishment of a peak demand reduction scheme with indicative targets of **1,029 MW** of demand reduction in NSW by 2030, a significant proportion of which will be driven by demand response with a complementary NEM scheme – Ref[2]. We anticipate similar schemes in some other jurisdictions with similarities to the NSW scheme.

AEMO Baselines Eligibility Compliance and Metrics Policy – Consultation Paper Responses
We appreciate the need for an accurate and timely means of quantifying a WDRU's response, however we understand that the baseline approach as proposed (with a target accuracy of 20%) will result in:

- ***80% to 83%*** of sites with consumption of 160 MWh to 750 MWh being ***ineligible***
- ***63% to 67%*** of sites with consumption of 750 MWh to 100 GWh being ***ineligible***

We note that this ineligibility is ***before*** the application of other WDR guideline requirements for a particular site as well as the need to resolve site considerations (technical, operational, commercial, other).

The combined net effect of which (baseline methodology, guideline requirements and site considerations) will result in independent WRDU providers having significant difficulty in recruiting sufficient WDRU sites to the point of being almost unviable and leaving vast amounts of peak demand reduction potential unrealised and WDR largely left to the incumbent players and current practices.

Also this approach leaves significant temperature driven load ineligible. Using the NSW region as an example, this equates to ~6,000 MW (assuming average and peak demand of ~8,000MW and ~14,000 MW respectively).

There are proven measurement and verification methodologies that incorporate accurate establishment of baselines (as used by the NSW Energy Savings Scheme, Victorian Energy Upgrades Scheme and the Emission Reduction Fund) that are currently used to determine energy savings and create property rights. We summarise the approach used by these schemes in Attachment A. We believe that these approaches should be incorporated by AEMO as one of the starting baseline methodologies under the WDR.

Yours sincerely

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ATTACHMENT A

Methodology Alternatives – M&V

One of the baseline methodologies specified by AEMO for the WDRM must be based on broader measurement and verification processes to allow for participants with loads that predictably depend on variables such as time, weather or other statistically valid data. We suggest that this methodology be based upon a transparent, rules-based method such as the International Performance Measurement and Verification Protocol (IPMVP). The IPMVP sets out the best practice approach to measure energy demand reductions, and is supported by an internationally recognised framework of training, guides and professional qualifications.

Fundamentally, this approach aligns well with that set out in the current discussion paper. Under IPMVP, baseline energy demand is predicted using a robust statistical model built using measurements of energy demand and the variables driving that demand. These variables could include, for example, weather, occupancy or production. Demand reduction is then measured using the difference between predicted and actual energy consumption. Within the WDRM, the accuracy and bias eligibility criteria set out in this document could be used to ensure compliance for any baseline set using an IPMVP-type methodology.

Established international demand response programs already use this approach to determine peak demand reductions. For example, in North America the ISO-NE program procures demand reduction capacity equivalent to 13% of system peak. Participants in this scheme use the approach set out in "Measurement and Verification of On-Peak Demand Resources and Seasonal Peak Demand Resources" to determine demand response savings from predictable variable loads. This approach is also already well established in Australia. Energy efficiency schemes in each state include measurement and verification methods based on IPMVP to predict, measure and verify annual savings from energy efficiency projects.

REFERENCES

[1] E3 Program - Smart Demand Response Decision RIS Approved 22 November 2019
https://www.energyrating.gov.au/news/smart-demand-response-decision-ris-approved

[2] NSW Energy Security Target and Safeguard Consultation Paper, April 2020
https://energy.nsw.gov.au/media/2031/download