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Submitted online to: <https://www.aemc.gov.au/rule-changes/wholesale-demand-response-mechanism>

Dear Mr Kelly,

Wholesale Demand Response Mechanism
Reference: ERC0247

The Australian Energy Council (the “**Energy Council**”) welcomes the opportunity to make a submission in response to the Australian Energy Market Commission’s (“**AEMC’s**”) *Wholesale Demand Response Mechanism Draft Rule Determination*.

The Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to over ten million homes and businesses, and are major investors in renewable energy generation.

Introduction

The Energy Council appreciates the work the AEMC has conducted to determine a suitable wholesale demand response mechanism which responds to the enthusiasm present in the market, but refrains from making changes which precipitate extensive revisions to the Australian Energy Market Operator’s (“**AEMO’s**”) and stakeholders’ settlement systems.

Nevertheless, the Energy Council harbours concerns that the recommended arrangements are not wholly fit for their proposed purpose since, as acknowledged by the AEMC,¹ the mechanism is only for the short-term, as it is not applicable to small customers. This suggests that implementation of the rule change is premature, and the commencement date of 1st July 2022 should be deferred until the rule change can accommodate the necessary changes to encompass small consumers, thereby saving AEMO and stakeholders the costs of introducing systems which will have a limited lifespan and later be replaced by a more comprehensive solution.

Discussion

Two-sided Market

The AEMC considers that “moving to a two-sided market will assist the NEM in effectively evolving and transitioning to the future power sector, whatever that future may look like.”² Acknowledging that the Energy Security Board is currently conducting its Post-2025 NEM Design Review,³ which may affect rule changes such as the one proposed, the Energy Council believes that while market signals are useful to encourage user behaviours, such market signals will necessarily be muted to ensure that customers are not exposed to the full force of the market price cap of \$14,700/MWh, nor are retailers exposed to the credit risk of such customers defaulting on their settlement obligations. Thus the objective of a two-sided market will inevitably be constrained to ensure that it is amenable to those who would participate in it.

¹ p.43

² p.35

³ See <http://www.coagenergycouncil.gov.au/publications/post-2025-market-design-national-electricity-market-nem>

In a similar manner to the contract market mitigating the risk of the spot market for generators and retailers, for a two-sided market to develop properly, an analogous contractual market will need to develop to alleviate the risk for retailers and consumers. In this way the overlay of a pool-exposed demand response market with a contractual market is similar to the private arrangements between Financially Responsible Market Participants and Demand Response Aggregators suggested by the Energy Council in its rule change request.⁴ This is reinforced by the AEMC's finding that, "The majority of consumers place a high value on consuming electricity, meaning that for the vast majority of pricing intervals the value they place on consumption exceeds the wholesale price, and they would not want to adjust their consumption even if exposed to the wholesale price."⁵ The coming Australian Energy Regulator ("AER") study on the value of customer reliability will provide more information on the extent to which customers value supply.⁶

Scheduling

The Energy Council agrees that for a proper two-sided market to develop, demand response needs to be scheduled in the market in a similar manner to generation. Obliging demand response to participate in scheduling will foster both accuracy in the forecasting and dispatch process, and confidence in the integrity of baselines.

The proposed threshold of 5MW for wholesale demand response units (which can include aggregated portfolios),⁷ and aligns with AEMO's treatment of generators, is supported. The Energy Council suggests that to clarify how the aggregation is determined, the rule should require that aggregation occur if units less than 5MW, but aggregating to more than 5MW, are ultimately connected to the same transmission network identifier ("TNI") (since AEMO's NEM Dispatch Engine performs its calculations at the TNI level). Thus if the aggregation results in capacity at the TNI greater than 5MW, the wholesale demand response unit would need to be scheduled, otherwise the unit could operate as non-scheduled. In this way the rule will make demand response available to the broader market as effectively as possible.

Market Power

The Energy Council is concerned about the AEMC's statement, "The integration of the demand side would also have the ability for the demand side to mitigate supply side market power."⁸ Maintaining and using market power is not of itself problematic.⁹ It is the misuse of such market power which is prohibited, and this is managed through rules such as the good faith rebidding rule.¹⁰ Most recently the AER reported in its Wholesale Electricity Market Performance Report that the only exercise of market power had been transient, rather than sustained.¹¹ At no point did the AER suggest that market power had been misused.

It is also noted that demand-side response can conceptually distort the competitive scheduling process in the same way as large supply, and therefore rules such as good faith and compliance with dispatch instructions should apply symmetrically.

Baselines

The primary issue with developing an effective wholesale demand response mechanism will always be the calculation of baselines. As the measurement of the absence of consumption can only be determined by inference, it will be very important for AEMO's procedures to be robust. To ensure this is the case, and to allow stakeholders to assess the rule change against the National Electricity Objective properly, the Energy Council would have expected the principles for the determination of baselines to be set out in the draft rule.

Notwithstanding the inability to assess the baseline process properly, the major shortcoming in the use of baselines is their effect on retailers' forecasts.

As it stands, retailers forecast their aggregated load, and either self-generate or purchase financial contracts to back their load, on the basis of forecasts which take into account the diversity between customers and the diversity between customer segments. This ensures that retailers don't over-purchase, and results in efficient costs being passed through to consumers.

⁴ Available at <https://www.aemc.gov.au/sites/default/files/2018-10/ERC0248%20rule%20change%20proposal%20pending.pdf>

⁵ p.36

⁶ See <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/values-of-customer-reliability-vcr>

⁷ p.84

⁸ p.39

⁹ See, for example, <https://www.afr.com/politics/agl-can-charge-more-in-sa-when-wind-drops--acc-c-boss-20160824-gr0bj>

¹⁰ Rule 3.8.22A "Offers, bids and rebids must not be false or misleading"

¹¹ Australian Energy Regulator, *Wholesale Electricity Market Performance Report*, December 2018

Attributing individual baselines to customers, with their inherent inaccuracies and margins for error, may result in retailers losing the ability to take advantage of diversity, and cause retailers to purchase more than they need to mitigate their risk. While there may be an improvement in overall system reliability as a consequence, the inefficient purchase of too much capacity will give rise to significantly increased costs, which will ultimately be borne by consumers.

The use of baselines is particularly problematic if employed by wholesale pool price pass-through customers. For these customers the retailer will be obliged to pay AEMO for their baseline (and be partially compensated for the demand response provided), yet the customer will only pay for their actual consumption. While customer contracts may be rewritten to allow the baseline charge to be passed through, the AEMC settlement model which would allow customers to continue to be billed on actual consumption would not be applicable. It is clear the mechanism is not intended for these customers, but it is not clear how they can be excluded from gaming its use.

Reimbursement of Retailers

To compensate retailers for being charged the baseline, the reimbursement rate will need to reflect retailers' likely costs. In the form the AEMC has suggested in the Draft Rule Determination, the Energy Council believes that retailers will be inadequately compensated for being charged the baseline for their customers.

Retailers don't purchase energy to supply their customers on a long-term "set & forget" basis. While retailers may enter into long-term power purchase agreements to back their underlying load, retailers are constantly reassessing their portfolios and buying (and selling) different products according to their individual risk appetites, to match their expected demand, based upon current forecasts of weather, price and other relevant parameters.

Demand response is most likely to be called upon at times of extreme demand, or supply shortfall, and these times are most likely to coincide with high prices. The Energy Council therefore agrees that the AER should determine the reimbursement rate, but it should not be based on average spot prices for the previous 12 months, calculated quarterly. Instead it is more appropriate for the reimbursement rate to at least reflect peak prices, at times of system stress, therefore at a minimum a figure derived from recent peak futures contracts should be considered.

Furthermore, the reimbursement rate should also attempt to capture the margin necessary to cover risk management and other services that retailers typically provide customers. These can be estimated from the building block approaches used to regulate retail prices for small customers.

Conclusion

The Energy Council appreciates the enthusiasm expressed by some stakeholders for implementing a demand response mechanism. While the more preferable rule proposed by the AEMC has considerable improvements over the original proposal by limiting the changes required to AEMO's and stakeholders' systems, unfortunately its reduced scope also makes it costly and effectively disposable. This is further compounded by the work being conducted by the Energy Security Board, which may result in significant changes to the wholesale market design.

On this basis, and in the absence of detailed information on the principles determining baselines, the Energy Council believes that implementation of the proposed rule should be deferred until the effect of other market changes becomes clearer, and the rule can be developed further so that it can be applied to a broader range of customers.

Any questions about this submission should be addressed to the writer, by e-mail to Duncan.MacKinnon@energycouncil.com.au or by telephone on (03) 9205 3103.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Duncan MacKinnon', with a long horizontal flourish extending to the right.

Duncan MacKinnon
Wholesale Policy Manager
Australian Energy Council