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Mr Declan Kelly
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Kelly

RE: Wholesale Demand Response Mechanism

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) draft determination on the wholesale demand response mechanism (WDRM) rule change.

About ERM Power

ERM Power is an Australian energy company operating electricity sales, generation and energy solutions businesses. The Company has grown to become the second largest electricity provider to commercial businesses and industrials in Australia by load[1]. A growing range of energy solutions products and services are being delivered, including lighting and energy efficiency software and data analytics, to the Company's existing and new customer base. The Company operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland. www.ermpower.com.au

General Comments

ERM Power appreciates the work the AEMC has done in developing the draft determination. We believe the AEMC's proposed approach recognises the risks of certain approaches that would have otherwise imposed large implementation costs on the market operator and market participants and potentially confused consumers. In particular, we consider that allowing consumers to continue to be billed on actual demand, rather than a baseline, is a sensible step to minimise the cost of completely overhauling AEMO and market customers' settlement and billing systems. We also consider that the rationale behind the proposed reimbursement rate is a simplistic attempt to ensure that retailers are left whole with respect to hedging costs. However, the AEMC's proposed methodology is inadequate, leaving retailers exposed to additional costs when demand response is dispatched. We believe that with minor adjustments, the reimbursement rate methodology can be improved to better reflect retailers' hedging costs at times when demand response is likely to be dispatched.

The WDRM rule change comes against a backdrop of significant change in the National Electricity Market (NEM). The 5-minute settlement rule change is coming into place on 1 July 2021 and has already had an impact on contract markets, where the ASX futures market is not pricing cap contracts for the 5-minute settlement world. The Retailer Reliability Obligation (RRO) came into effect on 1 July 2019, which places an obligation on retailers (and some large customers) to ensure they have sufficient financial market contracts to meet their projected peak demand during times of potential shortfalls in supply.

[1] Based on ERM Power analysis of latest published financial information.

The AEMC is also consulting on significant reforms to generator dispatch settlement through the Coordination of Generation and Transmission Investment (CoGaTI) review. Ultimately, all this work may be overshadowed by the Energy Security Board's (ESB) post-2025 review of the NEM which has already begun, with public consultation due to begin shortly. The scope of the ESB's review is wide and could lead to major changes in the fundamental design of the NEM.

ERM Power understands that the AEMC does not have carriage of all this work, nor can it pick and choose which rule changes to investigate. However, we are concerned that the interactions between different rule changes are not being fully explored, or at least not in a way that is clear to market participants. The WDRM draft determination contains only a brief reference to the RRO, while ignoring the wider implications that higher hedging levels may have on retailer costs under the WDRM. Nor has the draft determination included discussion of the potential ramifications of the CoGaTI review and the proposed implementation of generator nodal pricing and financial transmission rights on both contract markets and how wholesale demand response will be settled in the market.

These interactions can and should be explored in greater depth and included in the final determination as well as in other market reviews and rule change processes.

We do recognise that the AEMC has to some extent taken these impacts into account in setting a start date of 1 July 2022 for the mechanism. The AEMC suggests that this was on the advice of the Australian Energy Market Operator (AEMO) who said that this is the earliest date possible given other systems changes needed to enable the introduction of 5-minute settlement and global settlement. From our perspective, we agree with AEMO's assessment. There is a huge forward work plan of systems changes that AEMO and participants like ERM Power need to make, to enable the smooth introduction of these changes, plus any others that will no doubt arise over the coming years. We therefore find it troubling that the AEMC is leaving the door open to bringing forward the start date of the WDRM in comments made during stakeholder workshops and in the draft determination. We urge the AEMC to stick to the current time frame proposed in the draft determination. If anything, we believe there is a stronger case to delay implementation until the results of the ESB's post-2025 NEM review are known.

Overall, we consider that while the AEMC has put together a demand response mechanism that balances the obligations on demand response with its capabilities, there are a range of issues that the AEMC needs to change as part of the final determination in order to further minimise costs and risks on existing market participants.

Reimbursement rate

ERM Power understands that the purpose of the reimbursement rate is to allow retailers to recover the costs they would have recovered from their customers in the event that no wholesale demand response was dispatched. This intent was restated at the WDRM workshop on 16 August. To achieve this, the reimbursement rate should be designed to represent an approximation of the retail rate paid by the customer so that retailers are not exposed to the costs of hedging a customer's load when one of their customers does engage in demand response through a demand response service provider (DRSP). In this respect, we believe the currently proposed reimbursement rate methodology falls short of a reasonable benchmark in meeting its stated objective. We also acknowledge the difficulties in balancing the need to have a rate that can be calculated easily, based on transparent and relevant data by the Australian Energy Regulator (AER) and setting a rate that is close to the retail price paid by the customer.

We believe there is correlation with the proposed retailer compensation framework adopted by the Commission in the recently introduced Participant Compensation Following Market Suspension rule change and that recommended by the Commission for a proposed change to compensation paid to participants following the issue of a Clause 4.8.9 Direction by AEMO. In this framework participants are reimbursed for the reasonable costs incurred in complying with a either an AEMO dispatch instruction or Direction.

Prices for C&I customers – the ones who will initially be eligible to participate in the WDRM – are bespoke. Retail prices for C&I customers may be flat across the year, or it can have a peak/off-peak model, super-peak prices, or even quarterly prices. Ultimately, the price that a customer pays to its retailer will be a result of the combination of contracts that the retailer has procured to manage their customers' variable consumption profile and the risk of high spot prices at times of higher consumption. We consider that the current reimbursement rate, defined as the rolling 12-month load-weighted average spot price in the regional reference node updated quarterly will be insufficient and will impose additional costs on retailers as it is currently designed.

Instead we contend that in designing the methodology to determine the reimbursement rate, the AEMC needs to consider the likelihood of when demand response may occur. At this stage, the WDRM is limited to large customers (though we acknowledge that this may change) and dispatch under the WDRM will almost certainly occur when spot market prices are high which is likely to coincide with high demand.

Based on this, it is reasonable to deduce that demand response is likely to be dispatched during peak times, that is between 7am and 10pm on working weekdays. Peak times are a well understood concept, with trades on contract markets for peak products commonplace. AEMO also publishes average peak pricing on its website as part of its average daily and monthly price information.[2] We recommend that the AEMC therefore amend the draft rule to ensure that the reimbursement rate is based on ASX quarterly peak prices rather than a simple 12-month rolling average spot price across the whole year.

Further, as retailers progressively contract in advance for their load, retail prices relate more strongly to previous contract market outcomes than to average spot market prices. ERM Power considers that contract market prices provide a better reflection of the costs incurred by retailers to hedge their customers' load. As such, we consider that the most appropriate measure for the reimbursement rate would be to take the average settlement price of quarterly peak contracts traded in the 20 business days immediately prior to the beginning of each quarter. We consider that data for this metric is based on transparent and readily available data, would more accurately reflect retailer costs, and would align with the AER's existing work monitoring wholesale contract prices.

Similar to the framework implemented for participant compensation following market suspension, where the Commission recognised that the published price may not reasonably reflect the costs incurred by the market participant, in this case the reasonable costs of hedging a shaped peak consumption profile, we ask that the Commission consider the inclusion of a modest consumption profile risk weighting of 1.1 x average settlement price of quarterly peak contracts which is consistent in nature with that adopted in the above compensation framework to reduce the under recovery of costs due to the lack of transparency of pricing for shaped peak period consumption profiles.

Wholesale price pass through customers

We have identified that the mechanism as proposed in the draft determination could create an anomaly for customers on pool price pass through arrangements. While there are very few customers on pool price pass through (PPPT), they tend to be sophisticated users which are used to responding to high price events in the spot market. It is therefore likely that they would be prepared to participate in the demand response mechanism if they are eligible.

[2] AEMO, Data Dashboard https://aemo.com.au/Electricity/National-Electricity-Market-NEM/Data-dashboard#average-price-table

Under the proposed arrangements, PPPT customers would see a double benefit under the proposed WDRM, as they would continue to pay their retailer for actual consumption at wholesale prices. They would therefore already benefit from reducing their demand by virtue of facing the wholesale price. They would also receive the difference between the baseline and actual consumption multiplied by the spot price.

Retailers would face vastly increased costs under this scenario as they currently do not hedge a PPPT customer's load as there is no price or volume risk to manage; those risks sit with the customer. However, under the proposed WDRM, they would settle at the baseline with AEMO. Retailers could choose to hedge at the baseline, but that would entail costs that the consumer is not paying for.

We do acknowledge that there is a benefit of a PPPT customer operating through a wholesale demand response mechanism as they would in effect become a scheduled load. However, the benefits of this would be to the system operator, through increased visibility, and the consumer who is richly rewarded, while the retailer would face significantly increased costs and therefore reconsider the continued offering of PPPT arrangements to customers or seek to smear these increased costs across its consumer base.

Consequently, we believe that pool price pass through customers should be ineligible to participate in the WDRM. The draft determination asserts that DRSPs should not provide wholesale demand response that would have occurred anyway.[3] As such, we contend that demand response associated with PPPT arrangements is not additional. We recognise that AEMO has no visibility of which customers would have PPPT arrangements, so it may be necessary for a Financially Responsible Market Participant (FRMP) to be able to object to the classification of a National Meter Identifier (NMI) as a demand response unit on the basis of an existing PPPT arrangement.

Increasing information provision

The AEMC has proposed that DRSPs receive the baseline methodology for each of the demand response units in their portfolio.[4] The Commission argues that this is to help DRSPs manage the complexity of dispatch being based on actual consumption at the time of dispatch and settlement being assessed against the baseline. These are justifiable reasons to allow this.

As retailers are exposed to the same risks to some extent, in that they will be settled on the difference between actual and baseline consumption, ERM Power considers that retailers should also have access to the baseline methodology for any NMIs for which they are the FRMP. This will allow retailers to better understand the hedging risks involved if there is a significant difference between forecasts and baselines as well as likely settlement outcomes following demand response dispatch.

Further, retailers should also be made aware of whether the demand response units have been made available to the market and whether they have been dispatched. This should occur in real-time, or as close as is possible. Providing this information to retailers close to real time will allow the retailer to better understand if any sudden change in load is due to demand response or natural variation, and by extension to analyse expected settlement outcomes. For example, a sudden fall in load could be a result of random variation, equipment failure, a distribution network outage, or demand response. If it is demand response, the retailer may still face the risk of high spot prices and could decide to dispatch its own demand response portfolio to manage that risk. It will also allow retailers to prepare for the possibility that the dispatch of demand response could influence customer behaviour in the trading intervals both prior to and following dispatch. This could occur through activities such as pre-cooling or charging batteries and the subsequent additional increase in load post the wholesale demand response activity to return the consumers operations to the normal state.

[3] AEMC, (2019), Wholesale demand response mechanism, Draft rule determination, 18 July 2019, pp 129.
[4] AEMC op. cit., p101

ERM Power understands that there may be competition concerns around the provision of such information, but we envisage this as being a binary state as either available or not, and dispatching or not. We do not presume that retailers would have any visibility of volumes of demand response or price triggers.

Alternatively, the final rule could impose an obligation for a customer who enters into a demand response arrangement with a DRSP to notify the retailer that a demand response arrangement has been entered into, the dates of the agreement and details of the equipment to be subject to demand response. The retailer should then have the option to operate a child meter on the power supply facilities to the equipment subject to demand response. This would be at the retailer's expense. This would allow the retailer to monitor their customer's load and manage their own expectations of when demand response may be dispatched.

Interaction with the RRO

ERM Power has spent many hours considering how the approach proposed in the draft determination will influence other activities in the broader wholesale and retail market, particularly its interaction with the Retailer Reliability Obligation (RRO).

Based on our interpretation of the draft rule and Chapter 4A of the National Electricity Rules, which sets out the rules for the RRO, we have concluded that RRO compliance will be based on actual demand rather than the baseline volumes that the WDRM creates, unless a retailer chooses to use demand response contracts as a qualifying contract under the RRO. However, ERM Power considers that the draft determination is unclear and at different stages suggests that retailers will need to comply on either actual or baseline volumes.

We understand that as part of the RRO rules, demand response would result in an uplift to a retailer's load for compliance purposes if the retailer used demand response contracts as part of its contract position. This is to incentivise retailers to dispatch demand response at peak times so that a retailer only benefits in compliance terms if demand response is dispatched and therefore contributes to meeting system peak demand.

The AEMC's rationale for the proposed design of the WDRM is to ensure that retailers can maintain their existing hedging strategies. Under the RRO, retailers will already be incentivised to maintain prudent levels of contract cover. They will have to do this one year in advance for compliance purposes. Retailers will not necessarily have visibility of whether their customers will be engaging in demand response activities through a DRSP one year in advance. As such, it is unreasonable to expect retailers to hedge conservatively to cover a baseline value, that may or may not be used, and that may or may not accord with a retailer's assessment of customer demand. The need to contract well in advance if a T-3 reliability instrument is triggered for quite specific times means that the cost of contracts over a gap period may be high cost, with the reimbursement rate as proposed unlikely to come close to covering these costs.

We urge the AEMC to clarify the situation, and ultimately to ensure that retailers are to be assessed against actual demand values rather than baseline values (where a retailer is not using demand response contracts as part of their contract position).

Extension to small customers

The AEMC has also resolved that consumer protections need to be considered before extending the WDRM to small customers. This should also extend to how ombudsman services manage and resolve complaints about DRSPs. We believe that this is a prudent decision given the nature of electricity as an essential service for small customers and the specific regulatory requirements that retailers face when supplying electricity to small customers.

Demand response sits in a grey area in between the concept of electricity as an essential service and also a discretionary purchase. Some level of electricity supply is clearly essential for health and safety needs. This will vary markedly between different types of customers. For instance, shifting the operation of a pool pump to off-peak times is likely to have little to no impact on a consumer's utility, or health. Shifting the heating of an electric hot water system *may* have an impact. Cycling an air conditioner or refrigeration service on-and-off may have little noticeable impact for some consumers but could be detrimental to others. These are issues that need to be fully understood before the WDRM is extended to small customers.

We note that stakeholders at the AEMC's hearing on the draft determination held on 6 August, suggested that the ACCC's New Energy Technology Consumer Code could be used to contain consumer protections. We contend that this code, as a voluntary code applying to a range of possible services and products, is insufficient to manage the complex arrangements that relate to demand response.

In addition, we consider that should the WDRM be extended to small customers, there is the potential for this rule change to act as a partial barrier to entry for new entrant retailers. New entrant retailers frequently use load-following hedges to manage their spot price risk. Load following hedges tend to attract a risk premium as the seller is taking on large amounts of volume risk. Under a WDRM with small customers, buyers of load following hedges would still be exposed to the risk of paying for the difference between baseline and actual volumes at high spot prices when demand response is dispatched, as the hedge volume is based on metered consumption. Load following hedges are currently not designed for such a scenario.

It is possible that they will evolve to manage this risk and to settle retailers' load against metered plus baseline values. However, we would expect this to attract a more significant risk premium due to the increased risks that the seller is covering. This will inevitably make the costs of these contracts higher.

We understand that it is not the AEMC's role to protect a particular type of contract or a particular business model. However, we do consider that the AEMC needs to be mindful of the full suite of impacts that this rule change could have. If the extension of the WDRM to small customers does in fact lead to load-following hedges becoming a riskier and more expensive product, then this may eventually lessen competition in the retail market.

Conclusion

ERM Power considers that the AEMC has developed a well-intentioned model for wholesale demand response designed to minimise costs on the broader industry and therefore consumers, and to ensure that wholesale demand response is bid, scheduled and dispatched like other forms of generation. We believe that this model can be further improved by a series of relatively minor changes.

Chiefly, we recommend that the AEMC redesign the reimbursement rate in order to better reflect retailers' hedging costs. The reimbursement rate should be an average of quarterly peak contract settlement prices, as published by the ASX, immediately prior to the beginning of the quarter in which demand response is dispatched. Similar to the compensation methodology implemented in and proposed for other areas of the Rules, we consider that a modest weighting should be applied to the published values to reflect that hedging costs for consumer load will include a load shape premium over the published peak prices.

We also propose that information provision to retailers be enhanced to ensure they are aware in real time whether any of their customers are available to be, or have been, dispatched as demand response in order to manage their own portfolio and market risk.

In addition, we consider that the AEMC also needs to exclude pool-price pass through customers from the WDRM either explicitly, or by allowing retailers to object to the classification of a NMI as a demand response unit if it is part of a PPPT arrangement. This satisfies the Commission's objective that DRSPs should not provide wholesale demand response that would have occurred anyway.

Finally, we urge the AEMC to consider the inter-relationship of the WDRM rule change with other rule changes and policy processed including the CoGaTI review and the RRO and especially the ESB's post-2025 NEM review. At this stage we are not convinced that the potential interactions between each of these processes have been adequately addressed.

Please contact me if you would like to discuss this submission further.

Yours sincerely,

[signed]

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