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Thursday, 23 April 2020

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) second draft determination on the wholesale demand response mechanism (WDRM) rule change.

### **About ERM Power**

ERM Power (ERM) is a subsidiary of Shell Energy Australia Pty Ltd (Shell Energy). ERM is one of Australia's leading commercial and industrial electricity retailers, providing large businesses with end to end energy management, from electricity retailing to integrated solutions that improve energy productivity. Market-leading customer satisfaction has fuelled ERM Power's growth, and today the Company is the second largest electricity provider to commercial businesses and industrials in Australia by load<sup>1</sup>. ERM also operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland, supporting the industry's transition to renewables.

<http://www.ermpower.com.au>

<https://www.shell.com.au/business-customers/shell-energy-australia.html>

### **General Comments**

ERM Power commends the Commission on the work it has done to re-design the Wholesale Demand Response Mechanism following the delay to the release of the final determination. We consider that this second draft determination maintains the principles that underpinned the design contained in the first draft determination and achieves this with lower estimated costs.

We believe that the new design continues to ensure a rigorous process to ensure that demand response is treated like other forms of supply-side resources and rewarded accordingly, with appropriate safeguards to ensure that only genuine demand response is counted.

We also commend the AEMC at searching for an even lower cost solution for the Australian Energy Market Operator (AEMO) to implement. The pipeline of systems work, such as for Five Minute Settlement, Global Settlement, and as yet undetermined changes relating to the post-2025 review of the National Electricity Market (NEM) and Coordination of Generation and Transmission Investment will be costly for AEMO and participants. To the extent that these costs can be reduced, they should be, in order to minimise the consequent cost impacts

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<sup>1</sup> Based on ERM Power analysis of latest published information.



on end users. AEMO's costs for Five Minute Settlement have blown out substantially from their initial estimates and we would caution against any other major changes that could similarly increase well above estimated costs.

We note that as part of the revised design, the AEMC has proposed pushing forward the start date to October 2021. ERM Power appreciates that the AEMC is eager to have demand response transparently available in the market for the 2021-22 summer. However, with the high degree of uncertainty and risk in the economy as a result of COVID-19, we strongly urge the AEMC to keep an open mind as to the start date of the WDRM. There are already significant challenges becoming evident in managing and upgrading IT systems remotely, as well as remote sales staff and limited access to sites for installing control or metering equipment. Should these continue for an extended period, we do not see how the WDRM could continue on its current timeframe. Further, pressing ahead at such a time of high risk and uncertainty could mean that the full range of benefits may not be achieved as expected.

### **Wholesale price pass through customers**

ERM Power supports the concrete steps taken by the AEMC to ensure that customers exposed to the spot price (and therefore already have an incentive to reduce demand when prices are high) are not able to participate in the demand response during periods in which they are exposed to the spot price. However, it appears unclear to ERM Power how AEMO will be able to accurately assess this is the case if it relies purely on the customer and Demand Response Service Provider to provide AEMO with this information.

We believe it should be relatively simple to allow for a Financially Responsible Market Participant (FRMP) to object to the classification of a National Metering Identifier (NMI) as a wholesale demand response unit if it is a pool price customer, or to flag with AEMO when pool price pass through arrangements are in place. This would add an additional safeguard to the WDRM to ensure that it works as intended.

### **Increasing information provision**

We welcome the move to provide more information on the classification of a customer's NMI as a wholesale demand response unit to retailers. The AEMC's second draft determination proposes to inform retailers which of their NMIs has a relationship with a Demand Response Service Provider (DRSP), which baseline methodology is used for that NMI, as well as which NMIs are being dispatched for demand response.

ERM Power called on the AEMC to consider such provisions for the final rule following the release of the first draft determination. We are pleased that the AEMC has largely accepted our arguments around information provision. We consider that the changes contained in the second draft determination are a vast improvement which will help retailers better estimate and reconcile settlement costs from AEMO against the actual demand of their customers, and by extension the impact of baselines.

The AEMC has removed the requirement for DRSPs to provide availability information for the Medium-Term Projected Assessment of System Adequacy (MTPASA) as part of the second draft determination. DRSPs will still have to provide information to the Demand Side Participation Information Portal (DSPIP). This is part of the draft clause 3.7D. However, the draft rule does not clearly set out that this information must be used by AEMO in preparing their MTPASA load forecasts. Therefore, ERM Power proposes that Clause 3.7.2 be amended to include references to wholesale demand response. We recommend the following drafting changes:

#### **3.7.2 Medium term PASA**

*(a) The medium term PASA covers the 24 month period commencing from the Sunday after the day of publication with a daily resolution. Every week, AEMO must review and publish the outputs of the medium term PASA in accordance with the timetable.*

*(b) AEMO may publish additional updated versions of the medium term PASA in the event of changes which, in the judgment of AEMO, are materially significant.*



(c) The following medium term PASA inputs are to be prepared by AEMO:

(1) forecast load information for each region which is:

- (i) the 10% probability of exceedence daily peak load, most probable daily peak load and time of the peak on the basis of past trends, day type and special events including all forecast scheduled load and other load *including wholesale demand response units* except for pumped storage loads;
- (ii) subsequently to be adjusted by an amount anticipated in the forecast as scheduled load by load bidders *and dispatch bids for wholesale demand response units*; and
- (iii) an indicative half hourly load profile for each day type for each region for each month of the year;

This approach would allow for an estimation of wholesale demand response to be used as part of the reliability assessment over the MTPASA forward period and provide a better indication of the true reliability assessment and volumes of potential unserved energy in each region.

### Interaction with the RRO

In our submission to the draft determination, we called on the AEMC to clarify whether, in the event of a gap period under the Retailer Reliability Obligation (RRO), a retailer would need to have contract cover for their actual load during the gap period, or the load adjusted for baselines. The AEMC's second draft determination outlines that the latter will be the case under the RRO. ERM Power disagrees with this approach, as it exposes retailers to compliance risks associated with inaccurate baselines. If baselines are set too high, or can be pushed higher through changing usage patterns immediately prior to DR dispatch, then retailers could be at risk of non-compliance due to circumstances largely out of their control. The only way to manage this risk would be to over-hedge, and likely pass these additional costs on to consumers.

We do note that the new information provisions will provide retailers with information on which NMs are registered with a DRSP and the relevant baseline for each. This will assist retailers to manage the risks associated with being exposed to baselines for settlement and RRO compliance purposes. However, it still imposes risks on retailers which are imposed on them by a third party. While we understand the AEMC's reasoning behind this approach, we believe that the proposed approach will not add anything additional in terms of supporting reliability compared to the existing RRO provisions as set out in clause 4A. If a gap period is declared, retailers will continue to contract to for their share of the one-in-two year forecast peak demand – this is the target level under the RRO. If a retailer's customer has an arrangement with a DRSP, the retailer remains exposed to the wholesale spot price and so has an incentive to continue to contract to manage spot price risk. Retailers would continue to do that regardless of the RRO.

In the event that RRO compliance has been triggered, a retailer who has contracted to meet its expected demand may be at risk of non-compliance due to an inaccurate baseline. Even if RRO compliance was based on actual demand rather than baseline demand, a retailer would still be expected to contract to its usual levels due to spot price risk. The AEMC notes this in the second draft determination. We add that a retailer would receive no benefit from RRO compliance being at actual demand levels rather than baselines, except that inaccurate baselines would not increase the risk of non-compliance. Overall contracting levels would be largely unchanged regardless of whether baseline or actual values are used, but risks would be lower for retailers if actual values were used. This would translate to lower costs for consumers as a result.

We consider that this approach is inconsistent with the original intent of the RRO rules which set out that demand response would only be 'added back' to a retailer's load for compliance purposes if the retailer was the FRMP for that load and was using a demand response arrangement as a qualifying contract. This allowed a degree of flexibility to a retailer as to how best to utilise any demand response arrangements for load for which it



was the FRMP for RRO compliance and overall risk management purposes. The AEMC is now proposing adding back the demand to the retailer whose load is affected by WDR dispatch, regardless of whether they are using demand response as a qualifying contract. This removes the intended flexibility provided by the current RRO provisions.

The AEMC's approach in effect, disincentivises a retailer from becoming a DRSP and dispatching demand response into the market in a transparent and scheduled fashion.

### **Reimbursement rate**

ERM Power, along with many other retailers, called on the AEMC to consider alternative methods to calculate the reimbursement rate following the release of the first draft determination. We welcome the analysis which the AEMC has performed to consider alternative methodologies which better reflect the costs which retailers actually incur to hedge their load. We accept that no rate will be perfect – hedging involves many different contract types with different tenors, terms and triggers – and it is impossible for a single rate to match the costs of all retailers.

The AEMC is clear in the draft determination that it has examined the alternative designs for the reimbursement rates that were proposed in submissions to the draft determination. We acknowledge that the AEMC has concluded that the reimbursement rate should remain as the 12-month, demand-weighted average of the spot price, calculated quarterly. The Commission argues that this will produce a rate close to the wholesale cost component of the large commercial and industrial customers with flat, stable loads which are more likely to provide demand response.

In theory, this appears a reasonable approach. However, we do not know exactly which large users will participate in the demand response mechanism; it is credible for a user that offers wholesale demand response to have a predictable load that primarily consumes during NEM peak times. Therefore, we consider that an alternative reimbursement rate may be necessary for users whose consumption occurs primarily in peak times (7am – 10pm, working weekdays). This would be set as the rolling 12-month average of NEM peak prices, calculated quarterly. AEMO already reports peak prices on its data dashboard so this would not be a major imposition.

As peak times represent around 45% of trading intervals in a year, and 48% of consumption, excluding smelter load, we consider it reasonable that if greater than 70% of a demand responsive load's consumption occurs in NEM peak times, then the NEM peak reimbursement rate should apply. This would then create two reimbursement rates. One for loads that consume primarily during NEM peak periods, which would be classified as a peak load, and one for all other loads. A stable, predictable load operating continually during most trading intervals would still face a reimbursement rate set at the proposed 12-month rolling average. As peak times are a well understood and regularly used concept, with prices for these times already reported, this should not lead to a significant burden on AEMO to calculate the peak reimbursement rate. Similarly, the simple and well-defined criterion for classification as a peak demand responsive load means that it is easy to determine which loads would the peak reimbursement rate would apply to.

Beyond this, ERM Power recommends that the reimbursement rate must be subject to regular review. The review will also allow the rate to be reconsidered in the event of a substantive change to market design arrangements, such as is possible, if not likely, as a result of the post-2025 NEM review. The post-2025 NEM review is considering issues such as two-sided markets, locational marginal pricing, ahead markets and more. Any of these issues on their own could substantially change the rationale for the reimbursement rate and how closely it would reflect hedging arrangements. Given the pace of change at present, we would recommend an annual review for the first three years, conducted by an independent reviewer. This review should examine issues including the cost of hedging, the times and prices at which demand response has dispatched, the difference between baselines and actual values when not dispatching demand response, and average and



contract prices. Following the initial three years of reviews, a review should be conducted every two to four years which would, in ERM Power's view, be a reasonable way to take stock of whether the reimbursement rate is operating as it should.

### **Extension to small customers**

ERM Power recognises the desire for small customers to participate in the WDRM. Nonetheless, as we outlined in our submission on the draft determination, there are a range of consumer protections that need to be fully understood before such a move was made. Further, there were a series of other potential interactions that could have inadvertently led to creating barriers to entry for new retailers who use load-following hedges.

We therefore agree with the Commission's stance in the second draft determination that small customers will be excluded from the WDRM, with the view that a shift to a two-sided market would be the preferable way forward for small customers to benefit from providing demand response. While we do not have a clear indication as to what the two-sided market will look like at this stage, ERM Power considers that this is a reasonable approach to ensure that implementation costs are kept low and there is time to learn from the early stages of operation and how baselines function in real-world scenarios.

Pending the outcomes of the Energy Security Board's post-2025 NEM Review and the design of things such as the two-sided market, the retail market for small customers may well continue to innovate and evolve to create a greater variety of demand response products available to small consumers. The AEMC is right not to prejudge the results of the ESB's work.

### **Other drafting changes**

We recommend an addition to Clause 3.14.4(r), to provide information on the regional aggregated dispatch of wholesale demand response. By aggregating this at a regional level it would help protect the identity of individual WDRUs while providing a greater level of information to the market on the supply provided by demand response units. We suggest the following drafting changes for clause 3.14.4(r):

*(r) In accordance with the timetable, AEMO must publish details of:*

- (1) actual generation for each scheduled generating unit, semi-scheduled generating unit and non-scheduled generating unit or non-scheduled generating system;*
- (2) actual network service for each scheduled network service; ~~and~~*
- (3) actual load for each scheduled load; ~~and~~*
- (4) the aggregated regional dispatch of wholesale demand response units for each region.*

We query the reversal of the proposed changes to Clause 3.9.7 as set out in the first draft determination. The draft rules (Clause 3.8.10) require that wholesale demand response units be included in the formulation of any network constraints, as such a WDRU would automatically be required to respond to a dispatch instruction the same as any other scheduled participant which could include being "constrained on". The only way in which a WDRU could be excluded from being "constrained on" would be if it was given more favourable treatment than that given to all other scheduled participants in the formulation of a constraint equation. It is unclear to ERM Power how this would then be consistent with the requirements of Clause 3.8.10, most notably subclauses (b) to (d). In our view, if consistent treatment is applied to wholesale demand response units in the formulation of network constraints, which should arguably be the case, then they are at the same risk of being "constrained on" as any other scheduled participant.

Regarding existing changes to clause 3.20.7, it seems incongruous to have made changes to paragraphs (b) and (d) to add a reference to wholesale demand response units but to not add an equivalent reference in



paragraph (c). We recommend the AEMC amend clause 3.20.7(c) to include wholesale demand response units. We suggest the full clause read:

*(c) Subject to paragraph (b), AEMO must only dispatch a scheduled generating unit, a wholesale demand response unit, a scheduled network service or a scheduled load the subject of a scheduled reserve contract or activate generating units or loads the subject of an unscheduled reserve contract in accordance with the procedures developed pursuant to paragraph (e).*

Finally, the calculation for a benchmark value for demand response referenced in clause 3.14.5A(f1) could be far more generous than other generators or FCAS providers. While compensation paid to generators is based on data as determined by consultants for input assumptions for AEMO planning documents, it could be determined that costs for wholesale demand response units is based on the average value of customer reliability for the type of load offered for demand response. Consumers would incur significant compensation recovery costs if this were the case. ERM Power recommends that costs should be capped at an appropriate level in a manner similar to the differential approach used for batteries and hydro plant in the compensation due to market suspension pricing rule change, where these plants receive a value referenced to applicable gas plants in the same region.

## **Conclusion**

ERM Power welcomes the AEMC's second draft determination and believes that it has appropriately addressed several of the concerns we, and others, held about the first draft determination. The formal exclusion of pool price pass through customers from the WDRM when they are exposed to spot prices is a welcome, and logical decision. So too is the decision to exclude small customers in favour of relying on the development of a two-sided market as part of the ESB's post-2025 NEM review.

We consider that the changes proposed to the design of the mechanism itself, such as shifting demand response to operating more akin to a scheduled load is an understandable shift given the desire to reduce costs and design a mechanism that is robust to the development of a two-sided market. However, we are concerned by the impact of baseline values applying to retailers' demand for RRO compliance purposes. We believe that this places higher risks on retailers for actions that are taken externally, by a third party.

Finally, we recommend the AEMC undertakes a review of the reimbursement rate once the final design of the post-2025 NEM review is known and set for implementation. This would then test whether the current design for the reimbursement rate is fit-for-purpose under a new market design and whether it has been operating as planned.

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

Yours sincerely,

[signed]

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