

19 October 2023

Ms Dora Guzeleva  
Director, Wholesale Markets  
Energy Policy WA  
Email: energymarkets@dmirs.wa.gov.au

Dear Ms Guzeleva,

### **Exposure Draft – Reserve Capacity Mechanism Review Outcomes**

The Australian Energy Market Operator (AEMO) welcomes the opportunity to provide a submission on the Reserve Capacity Mechanism (RCM) Review Outcomes Exposure Draft, which seeks to implement the recommendations of Stage 1 and 2 of the RCM Review through amendments to the Wholesale Electricity Market (WEM) Rules.

AEMO acknowledges and appreciates the significant work that has been undertaken to date, in consultation with the RCM Review Working Group, and supports the intent of the proposed amendments.

Notwithstanding, it must be noted that the full suite of proposed changes will require significant modifications to AEMO's systems, operational processes, and procedures. This will require substantial resourcing, which must be balanced with the existing demands on technical and subject matter experts during the hypercare period following the commencement of the new market. As such, AEMO is unable to implement all of the proposed amendments in time for the 2024 Reserve Capacity (RC) Cycle.

Considering timeframes and competing priorities, AEMO proposes that initial efforts are focussed on the changes that can be successfully implemented for the 2024 RC Cycle. These include:

- Expressions of Interest (EOI) process.
- Demand Side Programmes (DSP).
- Relevant Level Method (RLM).
- Capability Classes and resultant Appendix 3.
- Information to be provided alongside the Electricity Statement of Opportunities (ESOO) – AEMO proposes that indicative forecasting is to be provided through a transitional ES00 (to be published, indicatively, by mid-January 2025).
- Introduction of Peak Individual Reserve Capacity Requirement (IRCR) Intervals and subsequent Peak IRCR changes effective from October 2025.

To ensure these changes can be delivered for the 2024 RC Cycle, and prevent the need to defer elements of the 2024 timetable, the relevant amending rules should be gazetted with commencement dates before the end of 2023. AEMO will also require approval from the Economic Regulation Authority for the expenditure required to implement the changes and is currently preparing to make a submission by March 2024.

AEMO has reviewed the proposed drafting, focusing on the rules that it considers can be implemented in 2024, and has identified many areas that require further clarification or amendment to address gaps and improve efficiency. Without additional work to refine the drafting and address these issues, AEMO considers that the practical implementation of the RCM Review outcomes may be limited.

**Attachment 1** highlights the substantive issues that AEMO considers should be addressed before the relevant changes can be implemented for the 2024 RC Cycle. AEMO's detailed comments on the Exposure Draft have been provided separately to Energy Policy WA (EPWA).

AEMO considers that the more complex changes, including the Flexible Capacity Product, should be delayed to future cycles. While the introduction of the Flexible Capacity Product is welcomed by AEMO, its introduction will require significant front-end development for AEMO's IT systems and additional forecasting and analysis – including providing a signal for any investment required. The timing of subsequent changes should be considered holistically and may require transitional rules to manage their commencement over multiple capacity years.

AEMO looks forward to working with EPWA to address the matters outlined in this submission to determine the commencement schedule, and further consider WEM Rules drafting for the RCM reforms, including those in this exposure draft that we consider are not able to be implemented in 2024.

While not a focus of this Exposure Draft, AEMO considers that as part of the implementation of the changes identified in the RCM Review, the timing and requirements of the steps in the RC Cycle should be reviewed. The SWIS Demand Assessment and AEMO's ESOO identify the need for significant investment in new capacity as part of Western Australia's energy transition. The nature of that investment and the broader context in which it needs to be delivered have changed significantly since the RC Cycle was designed. In addition, incremental changes to the RCM have changed the information requirements and complexity associated with various steps in the cycle. Given these changes and the significant changes now proposed in the RCM Review, it is timely to revisit the timing, and specific requirements of the steps in the cycle to ensure it is not resulting in any undue delays to the development of new capacity in the WEM.

AEMO would also welcome the opportunity to discuss the prioritisation and sequencing of the full range of WEM reforms under development, including those contemplated in the Distributed Energy Resources Roadmap. This substantial reform agenda will require significant implementation effort by AEMO and other Rule Participants. Identification of the timing and priority of initiatives will be necessary to avoid bottlenecks and improve the deliverability of the changes essential to enabling the energy transition in the WEM.

If you would like to discuss any matters raised in this submission, please contact Mena Gilchrist at [mena.gilchrist@aemo.com.au](mailto:mena.gilchrist@aemo.com.au).

Yours sincerely,



Kate Ryan

**Executive General Manager – Western Australia & Strategy**

Attachment 1: AEMO's substantive feedback on changes that can be implemented in the 2024 RC Cycle

## Attachment 1 –AEMO’s substantive feedback on changes that can be implemented in the 2024 RC Cycle

RCM Review Outcomes	AEMO comments and questions
<b>EOI Changes</b>	
<p><b>Removal of requirement to assign an Indicative Facility Class (IFC) when an EOI is submitted</b></p>	<ul style="list-style-type: none"> <li>• Under the changes to clause 4.8A.1, the requirement for AEMO to assign an IFC when an EOI has been submitted has been removed. While the EOI process is now optional, AEMO considers this requirement should be reinstated as there remains a benefit to assigning IFC at this stage in the process.</li> <li>• The amended drafting also requires AEMO to assign an IFC within 10 Business Days of receiving an application for Certified Reserve Capacity (CRC). This is not practical as certain Facility classes require specific information that is submitted as part of the IFC assessment request that needs to be included in the CRC application. In addition, there are potential timing issues with the Relevant Level calculations.</li> <li>• AEMO considers that the process should instead require the Market Participant to be assigned an IFC with AEMO prior to the closure of the CRC window.</li> </ul>
<p><b>Preliminary constraint equations and preliminary limit advice</b></p>	<ul style="list-style-type: none"> <li>• As the EOI process is now voluntary, only new Facilities that submit an EOI and existing Facilities will have Preliminary RCM Constraint Equations and RCM Limit Advice determined under section 4.4B.</li> <li>• Developing Preliminary RCM Constraint Equations and RCM Limit Advice is resource intensive. AEMO considers there to be little benefit provided to new proponents when compared to the time and effort spent in generating the preliminary equations and advice, and proposes this obligation is removed from the rules.</li> <li>• If the requirement for preliminary equations and advice is removed, and new proponents will require guidance regarding their contribution to network congestion before submitting a CRC application, they may obtain the Final RCM Constraint Equations published for the previous Reserve Capacity Cycle and available real-time Constraint Equations.</li> </ul>
<b>RLM – Appendix 9</b>	
<p><b>Timing of data publication for the RLM</b></p>	<ul style="list-style-type: none"> <li>• Under the changes in Step B.4.1 to B.4.3, the data AEMO must publish requires information that is not available at that stage in the process (e.g. Historic Output requires independent expert reports and committed status).</li> <li>• AEMO requests that the timing of this process is re-examined and queries whether there is benefit to Market Participants in publishing the data early, given the limited time before CRC applications must be submitted.</li> </ul>
<p><b>Use of "committed" in the RLM</b></p>	<ul style="list-style-type: none"> <li>• Committed Candidate is defined in Part A – A.2 as a Candidate which is the subject of an application for CRC and is deemed by AEMO to be committed. Currently, committed status is usually determined by</li> </ul>

	<p>AEMO after CRC has been assigned. AEMO requests that clarification is provided in the rules on how it is to determine that a Candidate is committed, and if this is intended to be published with the RLM data prior to the CRC window closing.</p>
<b>Determination of Forced Outage Rates for Facilities at different points in their lifecycle</b>	<ul style="list-style-type: none"> <li>• Certain Facilities are excluded under the revised Forced Outage Rate criteria in clause 4.11.1A. This includes Non-Scheduled Facilities (NSF) with only Electric Storage Resource (ESR) and Facilities that have been in Commercial Operation for less than 36 months.</li> <li>• AEMO requests clarification on whether the RLM is only intended to consider Forced Outage Rates, and how AEMO should consider Facilities that have not been in Commercial Operation for 36 months.</li> </ul>
<b>Non-Candidate Facilities does not include all other facilities</b>	<ul style="list-style-type: none"> <li>• In accordance with AEMO's understanding, the Non-Candidate fleet should include all non-RLM facilities in the set. However, the new rules in Step B.3 outlining the Non-Candidate fleet parameters exclude any "proposed" (non-RLM) Facilities or any NSF with an ESR in the first 5 years of commercial operation.</li> <li>• AEMO queries whether the Non-Candidate fleet should be amended to include all non-RLM facilities/components that have CRC in this capacity year.</li> </ul>
<b><i>Demand Side Programmes</i></b>	
<b>DSP Dispatch Requirement</b>	<ul style="list-style-type: none"> <li>• The new method under clause 4.5.12 is expected to reduce the number of intervals DSPs are expected to be available for dispatch. AEMO's initial analysis suggests this could be as low as 2 hours.</li> <li>• AEMO requests consideration of introducing a floor for the number of intervals a DSP is expected to be available for dispatch each year.</li> <li>• While DSPs are expected to be available for dispatch less than 200 hours they are now, a very low number would make them ineffectual if they can only be dispatched for a single peak event in the year.</li> </ul>
<b>DSP CRC Assignment</b>	<ul style="list-style-type: none"> <li>• Under the changes to clause 4.10.1, the method for assigning CRC to DSPs with only a single Associated Load is to use its IRCR contribution, which does not contemplate new loads not yet in operation. <ul style="list-style-type: none"> <li>○ Without a Consumption Deviation Application or another assessment, if the Associated Load was dispatched down in the Peak IRCR Intervals this would mask the effective dispatchable load for future years.</li> <li>○ A DSP can choose to nominate multiple Associated Loads in its CRC Application and only associate a single load in the capacity year, and vice versa.</li> <li>○ DSP Refunds linked to the metered load are a good mitigation for the gaming aspects of IRCR reduction, given the high refund rate expected.</li> </ul> </li> <li>• AEMO requests clarification on the decision to include the single Associated Load method of determining CRC.</li> </ul>
<b>DSP Reserve Capacity Test</b>	<ul style="list-style-type: none"> <li>• The new requirements for DSP Reserve Capacity (RC) testing under clauses 4.25.3D to 4.25.3G require a DSP to pay Capacity Refunds for the portion of capacity that failed the test, until that Facility passes the test or reduces its Capacity Credits.</li> <li>• Clause 4.25.4 is clear regarding testing requested by AEMO, but there is no associated indication of when the DSP should start paying refunds.</li> <li>• AEMO requests clarification on whether the initial RC Test under clause 4.25.3D incurs refunds and when the DSP would be required to start paying refunds.</li> </ul>

<b>DSP capacity reduction</b>	<ul style="list-style-type: none"> <li>• The new method proposed in the amendments to clause 4.25.4CC will ensure that a DSP can refund up to 125% of capacity payments and, if it chooses to, reduce Capacity Credits and lose up to 25% of its RC Security.</li> <li>• The calculation under clause 4.25.4CC could be open for interpretation and AEMO requests that this be simplified to improve clarity and remove referencing errors and definition inconsistencies.</li> <li>• AEMO considers that a simpler logic would be easier to implement and could still meet the intent of the RCM Review outcome 7. AEMO proposes working with EPWA to refine the calculation.</li> </ul>
<b>Capability Classes and changes – Appendix 3</b>	
<b>Application of Capability Classes</b>	<ul style="list-style-type: none"> <li>• Capability Class 2 is intended to be firm capacity with energy limitations (e.g. a battery), however the new definition for Capability Class 2 excludes all Semi-Scheduled Facilities, which could include renewable intermittent generation firmed by ESR.</li> <li>• As an ESR within a Semi-Scheduled Facility will have all the obligations associated with an ESR Obligation Interval, it should be included in determining the Availability Duration Gap.</li> <li>• It is unclear in the rules if Capability Classes apply to a Facility or to a component of a Facility. As these classes are used in Appendix 3 to determine the Network Access Quantities (NAQ), any change to apply these at the component level would require AEMO to replace the NAQ implementation.</li> <li>• AEMO therefore requests clarification on:             <ul style="list-style-type: none"> <li>○ The Capability Class of a Semi-Scheduled Facility with an ESR and a Non-Intermittent Generating System; and</li> <li>○ Whether the Capability Classes apply to the Facility or the component of the Facility.</li> </ul> </li> </ul>
<b>Information to be provided alongside the ESOO</b>	
<b>Publication of input data to be used in the RLM</b>	<ul style="list-style-type: none"> <li>• Under the amendments to clause 4.1.9, AEMO is required to publish input data to be used in the RLM on the first Business Day following 17 June. AEMO notes that there is only 5 Business Days between this date and 24 June, when the CRC application window closes. This does not provide Market Participants much time to assess the information and update their CRC applications accordingly.</li> <li>• AEMO requests that the timing of the information required to be provided alongside the ESOO is more broadly considered and adjusted, where necessary.</li> </ul>
<b>Peak IRCR Changes</b>	
<b>IRCR median contribution</b>	<ul style="list-style-type: none"> <li>• AEMO has identified a problem with the revised methodology in Appendix 5 for calculating the median for loads that were not registered with AEMO during the previous hot season.</li> <li>• Under the amended rules, AEMO is required to include 4 peaks from the Trading Month n-1 (under the current rules it is n-3) in the Median4 calculation. The Median4Peaks for a Trading Month n-1 will be determined shortly after the Interval Meter Deadline for the last day in Trading Month n-1 (see clause 4.1.23B).</li> <li>• As this would occur towards the end of Trading Month n, the Indicative IRCR for all Trading Days in Trading Month n would already have been published, as would the initial IRCR and in some cases the adjusted IRCR.</li> </ul>

	<ul style="list-style-type: none"> <li>Given the above, AEMO queries whether it is possible to use 4 peaks and therefore proposes that n-3 is used instead of n-1.</li> </ul>
<b>Daily IRCR</b>	<ul style="list-style-type: none"> <li>Under amendments to clauses 4.28.6 to 4.28.7A, AEMO must calculate the Peak and Flexible IRCR (including the indicative IRCR and each of the weekly settlements) daily.</li> <li>A key learning from the WEM Reform program is that the generation of large amounts of data require additional design considerations and incurs maintenance costs.</li> <li>The monthly IRCR calculation currently generates approximately 48 million records per year. Calculating daily IRCR using the new methodology would see this increase to around 3.5 billion records per year.</li> <li>The volume of data generated and stored in the WEM has significantly increased following the implementation of the new market. AEMO questions whether there is ongoing benefit to implementing daily IRCR, given the low churn rate in the market and the likely increased implementation costs resulting from the increase in data volume.</li> </ul>
<b><i>CRC Process Changes – Appendix 9</i></b>	
<b>Independent expert reports</b>	<ul style="list-style-type: none"> <li>New Part A – A1(b) requires the Market Participant’s CRC application to include all required supporting information and to have been deemed by AEMO to be complete.</li> <li>The way this interacts with the new provisions around IFC and independent expert reports should be re-examined. Applications may not be complete until AEMO has assessed the IFC (CRC window close + 10 Business Days) and the Market Participant has provided any additional required information (another 10 Business Days). This could be as late as 22 July.</li> <li>AEMO requests guidance on when the application should be deemed complete, and when AEMO can commence the Relevant Level calculations, considering the current CRC assessment period of 35 Business Days.</li> </ul>