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Dear Ms Cusworth

Margin values 2019/20 and Cost_LR 2019/20 to 2021/22

AEMO welcomes the opportunity to provide this submission in response to the Economic Regulation Authority (ERA)'s Issues Paper on Ancillary Service parameters.

There are several challenges associated with the administered pricing mechanisms for Ancillary Services under the Wholesale Electricity Market Rules (WEM Rules). These mechanisms require AEMO to propose values to the ERA based on modelling of potential future outcomes. AEMO takes all care to ensure reasonable assumptions are used in the modelling, including using feedback from consultation with Market Participants. However, the assumptions used are made well in advance of the period for which the parameters are determined, increasing the risk that the assumptions deviate from market behaviour. Further, the mechanisms are not flexible enough to account for operational changes that may occur in the normal and prudent operation of the power system.

AEMO fully supports the review of the Ancillary Services markets and mechanisms that are being progressed by the WEM reform program, and will provide insights on the challenges associated with the administered pricing mechanisms to deliver more efficient market outcomes.

Spinning Reserve

Exclusion of Load Following Raise Capacity from the Calculation of Margin Values

The ERA has asked for stakeholder views on whether load following raise capacity should be "excluded from the calculation of spinning reserve margin values if it does not have a contract with AEMO for the provision of spinning reserve?" In its submission, AEMO noted¹ that despite the reference to "LF_Up_Capacity(t)" (LFAS contribution to Spinning Reserve Service (SRS)) in clause 9.9.2(f) of the WEM Rules, AEMO considers that it may only procure Spinning Reserve Ancillary Services from a non-Synergy Market Participant under clause 3.11.8 of the WEM Rules. Procurement of Spinning Reserve Service through an Ancillary Service Contract would ensure the Facility is configured to meet all the

¹ EY, Margin values review for 2019/20, Final Report PUBLIC VERSION. p7, footnote 1.

<https://www.erawa.com.au/cproot/20053/2/EY%20Margin%20Values%20Final%20Report%20-%202018-12-13c%20-%20Public%20Version%20-%20TO%20CLIENT.PDF>

technical requirements and obligate the Rule Participant to meet any ongoing operating and commissioning requirements.

The ERA notes that “excluding load following raise reserve capacity from the calculation of spinning reserve payments due to a lack of a contract with AEMO does not appear to be consistent with the market rules.” AEMO supports a review of this approach in future margin values reports. AEMO encourages the ERA to provide clear direction on the application of the WEM Rules, in this regard, in its margin values determination to support this review.

Irrespective of any contractual matter, AEMO strongly agrees with the ERA's view that “it is reasonable to exclude a Facility from the calculation of spinning reserve payments if it does not meet the technical requirement for providing the spinning reserve service, despite providing the load following raise service.” Certainty is required that Facilities providing SRS will respond to a contingency event appropriately² to arrest the frequency decline and prevent under-frequency load shedding.

In the 2019/20 margin values review, LFAS (raise) capacity from one of the Rule Participants was not considered as providing Spinning Reserve, because it was not procured to do so under clause 3.11.8 of the WEM Rules, and also due to technical limitations of the plant to respond appropriately.³ The ability of generation to respond in sufficient time is essential to ensure adequate system response. In practice, it is necessary to establish a mechanism to ensure that a Facility's LFAS (raise) capacity can be considered as providing Spinning Reserve when they are in a position to technically be able to do so. The mechanism to assess and commission would be separate to the processes for LFAS commissioning.

Load Rejection Reserve (LRR)

Cost Determination

In the 2016 – 2019 review period for Cost_LR, AEMO proposed a zero cost to be associated with the service of providing Load Rejection Reserve Response (LRR). For the first time, the ERA determined an annual payment of \$1.4 million for this three-year period, where previous payments were zero.

In the past, generators inherently provided LRR due to their operating point and these generators were compensated by the Balancing Price. Due to lower system demand the availability of LRR-capable generators has become an increasing focus during the planning of the dispatch of the Synergy Balancing Portfolio. This requires higher-cost generation to be dispatched before lower-cost generation in order to ensure sufficient LRR.

In the 2016 – 2019 proposal for Cost_LR, the modelling estimated that the cost to Synergy of providing LRR would increase significantly from previous values. This increase has expedited work already underway including:

- Reviewing options for the management of the LRR requirements.
- Considering the opportunity of procuring LRR from other Rule Participants in accordance with clause 3.11.8A of the WEM Rules. AEMO has released a Request for Expression of Interest to determine if there are other interested providers of LRR.

² Clause 3.9.3(a) of the WEM Rules requires a Facility providing Spinning Reserve Service to be able to respond appropriately within 6 seconds.

³ The particular Facility is not able to respond according to the requirements of clause 3.9.3(a) of the WEM Rules.

This work, including trialling alternative options to manage LRR will be progressed in coming months. If, as a result of this work, System Management determines that the costs for the 2020-21 Financial Year will be materially different to the cost provided to the ERA, System Management will submit an updated proposal to the ERA.

LRR Requirement

AEMO's 2018-19 Ancillary Services report identified that up to 120 MW of LRR would be required. In a pre-dispatch time frame, this is what is considered to be required and what is planned to be available. In real time, as dispatch outcomes change, due to varying power system conditions as well as the changing bids, the actual availability of LRR may be less. As generators that are providing both LFAS (down), and LRR reduce their output in responding to the Automatic Generation Control (AGC) requirements, the instantaneous available LRR will also reduce. AEMO will take action, when required, to ensure system security is not compromised. However, the substantial cost components in the planning for the provision of 120 MW have already been incurred.

Accordingly, the modelling attempts to replicate the planning and dispatch processes required to schedule and operate available Synergy plant to meet the LRR requirement.

De-commitment of Synergy Facilities

In relation to the ERA's comments about the possibility of the model overestimating the rescheduling requirement and the LRR cost⁴, it should be noted that the model would only de-commit coal units that are not providing LRR, within the defined period on the weekend⁵. Furthermore, all associated de-commitment costs for coal units that are not providing LRR are excluded from LRR availability cost, on the basis the Facility was not providing LRR. In this regard, AEMO does not believe the model has overestimated the LRR availability cost associated with de-commitment. The purpose of modelling the de-commitment of non-LRR Facilities reflects actual practice, and is to allow other Synergy LRR capable Facilities to meet the LRR standard and maintain energy balance during the weekend, when there are less reserves available.

System Restart Service (SRS)

Procurement Process

The ability to restart the power system, after a system black event, is an essential capability of an islanded system such as the SWIS. There are no alternative external systems from which power could be utilised to re-energise the system. The availability of SRS is essentially an insurance policy.

There are a limited number of providers that can supply this service. If a Facility has not previously had the capability to provide the service, equipment will need to be installed to enable it. The potential provider would need to be able to recover these costs over a period of time.

⁴ ERA, Ancillary service parameters: spinning reserve margin peak and margin off-peak (for 2019/20) and load rejection reserve and system restart Cost_LR (for 2019/20 to 2021/22) – Issues paper, p18.

⁵ EY, Load Rejection Reserve Service Cost for 2019/20, 2020/21 and 2021/22: Public Version, 2018, p15.

The cost of the contracts signed with two of the previous providers of SRS was of a similar magnitude to the cost of the previous contracts. The cost of the third contract was significantly higher, as new equipment was required to be installed. AEMO's proposal for 2016 – 2019 period included the expected cost of the new SRS Facility for the 2017-18 and 2018-19 years. This proposal for the 2019 – 2022 review period, proposes values considering the actual contract cost. These values are of the same order of magnitude as the previous submission⁶. The details of the procurement process have subsequently been shared with the ERA.

Two of the three SRS contracts are due to expire during this review period (end June 2021). A revised Cost_LR proposal may be made once further information is available to indicate potential costs associated with new contracts.

Please do not hesitate to contact me if you require any further discussion or clarity on any of these issues.

Yours sincerely



Cameron Parrotte
Executive General Manager, Western Australia

⁶ ERA, Ancillary service parameters: spinning reserve margin peak and margin off-peak (for 2019/20) and load rejection reserve and system restart Cost_LR (for 2019/20 to 2021/22) – Issues paper, p7