

23 March 2021

Ms Sara O'Connor  
 Economic Regulation Authority  
 PO Box 8469  
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Dear Sara O'Connor

**ANCILLARY SERVICE COSTS – SPINNING RESERVE, LOAD REJECTION RESERVE, AND SYSTEM RESTART (MARGIN VALUES COST\_LR) FOR 2021/22**

Synergy welcomes the opportunity to comment on the proposed margin values and Cost\_LR ancillary services parameters for 2021/22 (**Issues Paper**) and addendum to the issues paper (**Addendum**).

Financial year 2020/21 has thus far transpired in the context of unprecedented changes to the Wholesale Electricity Market (**WEM**) largely brought about by the impacts from the COVID-19 pandemic, increasing penetration of rooftop solar photovoltaic (**PV**) systems and ongoing regulatory reforms (**WEM Reform**) led by the Energy Transformation Strategy (**ETS**).

The need to respond to the COVID-19 pandemic whilst continuing to meet its obligation to maintain critical power system security and deliver changes necessary for the WEM Reform has influenced the Australian Energy Market Operator's (**AEMO's**) decision to propose that the margin values and Load Rejection Reserve (**LRR**) service component (i.e. the L component) of the Cost\_LR parameter determined for 2020/21 be retained for 2021/22<sup>1</sup>.

Under this context, the Economic Regulation Authority (**ERA**) has reviewed AEMO's proposal, analysed the effects of the shifting market dynamics in the WEM and conducted its own modelling and investigation of spinning reserve and load rejection reserve requirements and costs over 2021/22. The outcome of this analysis has been summarised as follows:

Summary of proposed 21/22 values				
Ancillary Service	20/21 Approved	21/22 AEMO Proposed	21/22 ERA Proposed (Issues Paper)	21/22 ERA Proposed (Addendum)
<b>SRAS</b>	\$8,395,000 Margin Peak - 25.46% Magin Off-Peak - 21.42%	\$8,395,000 Margin Peak - 25.46% Magin Off-Peak - 21.42%	\$80,000 Margin Peak - TBD Magin Off-Peak- TBD	\$6,534,000 Margin Peak - TBD Magin Off-Peak- TBD
<b>LRR</b>	\$ 1,167,000	\$ 1,167,000	\$ 8,617,000	\$ 7,386,000
<b>Total</b>	\$ 9,562,000	\$ 9,562,000	\$ 8,697,000	\$ 13,920,000

<sup>1</sup> <https://www.erawa.com.au/cproot/21234/2/COVID-19-pandemic-AEMO-review-of-regulatory-activities-under-Wholesale-Electricity-Market-Rules-and-proposed-actions.pdf>

Availability payments for the Spinning Reserve Ancillary Service (**SRAS**) are recovered via multipliers (the margin values for peak and off-peak) that are applied to the balancing market price and the quantity of spinning reserve modelled for the period. However, despite the provision of estimated SRAS costs, the more critical components (margin peak and margin off-peak parameters) used to determine compensation have not been specified as part of the Issues Paper or Addendum.

Synergy considers it difficult to formulate a firm position on the proposal without this critical piece of information and submits the following comments based on available information.

At \$80,000, the 21/22 value proposed in the Issues Paper pertaining to the forecasted compensation for SRAS is incomprehensibly low. This has since been revised to \$6.5m in the Addendum, having further accounted for:

- a) the effects of the increase in SRAS quantity;
- b) the impacts of the Generator Interim Access (**GIA**) arrangements; and
- c) updated market and generator data to forecast SRAS and LRR costs.

Synergy considers the original base forecast of \$80,000 for SRAS costs to be grossly inaccurate and would result in significant under-remuneration to Synergy. This may be caused by modelling deficiencies stemming from:

- a) challenges in modelling the behaviour of a balancing portfolio;
- b) use of forecasting methodology that benefits from perfect hindsight and utilised a co-optimised approach, inconsistent with reality;
- c) issues with the derived pricing duration curve; and
- d) inappropriate gas price assumptions of \$5.25.

If these issues were addressed, Synergy contends that this would result in a materially higher, and arguably more cost-reflective, initial forecast for SRAS costs. The impact from the increase in SRAS requirements would therefore augment this higher base.

Synergy strongly encourages the revision of current modelling to properly account for the above concerns, as well as publication of an additional addendum (with the opportunity to further submit) on the proposed margin peak and off-peak values associated with the \$6.5m proposed SRAS costs.

However, given that industry consultation closes on 23 March 2021 and the final determination is due on 31 March 2021, there is limited time for the ERA to appropriately consider industry feedback and then partake in further modelling.

As such, despite the view that the proposed values would continue to result in significant under-remuneration to Synergy for the ongoing provision of load rejection and spinning reserve services, Synergy considers that at \$13.9m, the proposed SRAS and LRR costs are collectively more appropriate and cost-reflective relative to 2020/21 margin values currently in force and therefore **recommends that the ERA approves the overall SRAS costs and Cost\_LR parameters** (allowing for revisions to address the aforementioned concerns) provided in the Addendum.

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**Question 1:**

*What are stakeholders' perspectives on market dynamics changing the quantity and cost of ancillary services?*

*Do AEMO's proposed spinning reserve and load rejection reserve costs represent the cost of these services, given changing market dynamics? If so, why and if not, why not?*

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The Issues Paper submits various observations relating to the effects of the changing market dynamics in the WEM. Although generally reflective of the overarching trends, these observations fail to fully contemplate the following.

Page iii of the Issues Paper makes the statement 'generators scheduled to provide upwards LFAS can also provide SRAS at no additional cost. Consequently, there is no more upwards LFAS available to meet the SRAS requirement.' Further comments in the Issues Paper note that 'the modelled cost of SRAS is very low, reflecting the fact that generators providing LFAS and LRR can also provide SRAS at zero incremental cost'.

Synergy disagrees that there is no incremental cost involved for the provision of SRAS when simultaneously providing LFAS and notes this may be true only when modelling with the benefit of perfect hindsight, which enables the perfect dispatch of facilities required for ancillary services.

In reality, dispatch needs to account for consumed LFAS, and where consumption of LFAS leaves insufficient headroom to accommodate SRAS, an additional facility may be required. Where System Management requires an additional unit to commit in real-time, Synergy may need to commit an additional gas generator, which is more costly.

Dispatch decisions are further complicated by inaccuracies in the balancing price forecasts and co-optimisation does not currently exist in the WEM. Instead, uncertainty in the market may give reason to schedule multiple facilities for the provision of ancillary services, whereas with the benefit of hindsight, less facilities may have been required to service requirements.

In summary, System Management and Synergy are unable to operate with perfect hindsight and Synergy will likely incur additional costs, including start-up costs, to ensure there is sufficient plant to satisfy both SRAS and LFAS requirements in order to maintain system reliability.

Notwithstanding these comments, Synergy notes that AEMO has conducted an extensive amount of modelling to better reflect proposed SRAS and LRR. However, AEMO's proposed 21/22 value, which seeks to retain parameters currently in force, remains unduly low at \$9.6m and does not take into account the recent changes to market dynamics and increased spinning reserve requirement resulting from escalating penetration of solar PV and network contingency. Relative to this, Synergy considers the elevated proposal of \$13.9m by the ERA in its Addendum to be more reasonable.

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**Question 2:** *The modelling indicates substantial changes to the cost of spinning reserve and load rejection reserve, and the derived ancillary service parameters may not provide adequate compensation for spinning reserve. With a comparable magnitude in total of spinning reserve and load rejection reserve, is there a case to roll over the 2020/21 values?*

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Synergy agrees that the derived ancillary service parameters do not provide adequate compensation for spinning reserve, however, disagrees that the magnitude in total SRAS and LRR for 20/21 is comparable to 21/22 given the increase in spinning SRAS requirements and shift in market dynamics.

Synergy is therefore unable to support the roll-over of 2020/21 approved values as it does not adequately reflect the costs to provide ancillary services.

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**Question 3:** *What alternatives could ensure correct compensation is paid in 2021/22?*

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Ideally, compensation for ancillary services should be determined on an ex-post basis, however, the WEM Rules preclude this from being implemented.

Enabling an ex-post determination of the ancillary services requirements would benefit the WEM by allowing AEMO to determine the *actual* SRAS and LRR requirements for the financial year, thereby avoiding under or over-compensation of SRAS and LRR ancillary services and improving market efficiency (Market Objective (a)). Additionally, this would remove the dependency on having to forecast balancing prices, which on occasions, have deviated materially from observed values.

This approach would further ensure correct compensation to Synergy for any changes to ancillary service requirements that occur during the year, such that the recent situation where Synergy was not compensated for the uplift in SRAS requirements that commenced on 15 January 2021<sup>2</sup>, would not occur.

However, upon the commencement of the new market, intended for 1 October 2022, SRAS and LRR will be replaced by Contingency Reserve Essential System Services and will operate in the Real-Time Market. At this point, it will be possible to understand the full extent of the cost of provision of SRAS and LRR.

Given this mechanism will be rendered obsolete upon the introduction of the new market, it is difficult to justify initiating a Standard Rule Change Process to incorporate an ex-post compensation mechanism for ancillary services. Nonetheless, Synergy suggests that an improved solution would be for AEMO to publish a dynamic forward forecast of LRR, and for that matter, SRAS which is reflective of the latest bidding information. This information should be published and therefore available to all market participants ahead of time such that Synergy and other market participants have the opportunity to reflect this information in their balancing submissions.

Synergy further recommends that the consultation process be continued for the determination of 2022/23 margin values and Cost\_LR parameters (in spite of the reduced effective period) to avoid under or over-compensation of ancillary services as well as to facilitate the Wholesale Market Objective of market efficiency and transparency.

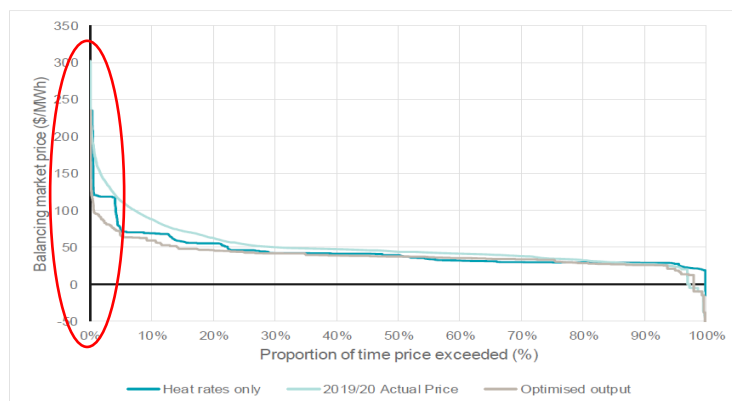
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<sup>2</sup> The market, including Synergy, received a dispatch advisory from AEMO on Friday 15 January 2021 advising of the immediate increase in Spinning Reserve requirements during particular Trading Intervals to account for the consequential disconnection of distributed photovoltaics following the loss of the largest network contingency.

In lieu of the ability to readily adopt an ex-post compensation mechanism, Synergy recommends enhancing existing modelling by addressing the following potential modelling deficiencies to produce more cost-reflective prices.

- a) challenges in modelling the behaviour of a balancing portfolio;
  - a. in the Issues Paper, the ERA repeatedly emphasises its challenge in forecasting the behaviour of a balancing portfolio and specifically calls out its ‘inability to identify which of Synergy’s generators are run where their cost exceeds the balancing price’ and difficulty in readily identifying ‘Synergy’s out of merit costs’; and
  - b. Synergy considers that these assumptions can be formulated with assistance from AEMO and that the inability to do so may be a result of deficiencies in the modelling approach which is reflected in the infeasibly low proposal of \$80,000 for initial SRAS costs;
- b) use of forecasting methodology that benefits from perfect hindsight and utilised a co-optimised approach, inconsistent with reality;
  - a. Synergy considers it inequitable to determine compensation for the provision of SRAS and LRR based on a co-optimised approach and modelling with perfect hindsight as this is not reflective of how the WEM currently operates; and
  - b. as the market operates on an, arguably, inefficient basis, compensation and thereby modelling should also account for these inefficiencies in order to satisfy clause 3.13.3A(a) which requires the consideration of the recovery of Synergy’s margin of energy sales foregone due to the supply of spinning reserve and the resulting loss in efficiency of Synergy’s scheduled generators;
- c) issues with the derived pricing duration curve; and
  - a. figure 7 of the Issues Paper visualises the price duration curves for heat rates

Figure 7: Price duration curves for heat rates only and post optimised back cast



Source: ERA modelling and ERA analysis of AEMO data

- b. the significant differential between the heat rates and optimised output suggests the underlying model is flawed and may materially understate fuel consumption, particularly those where the heat rate base has been set to zero;

- c. in late February, Synergy provided the ERA revised physical generation parameters such as plant efficiency (heat rates). As per the Addendum, the ERA has revised its modelling approach to incorporate these updated assumptions;
  - d. however, the Addendum provides no further clarity as to whether the issues associated with the derived pricing duration curve has been mitigated through the correction of the heat rate data assumptions, so Synergy requests the ERA to address this as part of its final determination.
- d) inappropriate gas price assumptions of \$5.25
- a. given that the object is to compensate Synergy for its costs to supply ancillary services, Synergy submits that its actual delivered gas price should be used as the basis for the fuel cost input for the purpose of setting the proposed margin values and Cost\_LR parameter.

**Conclusion:**

Clause 3.13.3A of the WEM Rules requires the ERA to take into account the Wholesale Market Objectives and AEMO's proposal which must consider the recovery of Synergy's margin of energy sales foregone due to the supply of spinning reserve and the resulting loss in efficiency of Synergy's scheduled generators when determining values for the parameters margin peak and margin off-peak.

The forecasted LRR costs are an improvement to the grossly inadequate parameters currently in force. However, Synergy is unable to provide a fully considered response on compensation for SRAS in light of the absence of the proposed margin peak and margin off-peak values. Synergy considers that the 2020/21 approved margin value parameters remain unduly low and contends that an appropriate 2021/22 margin value should be in excess of those currently in effect.

Notwithstanding these comments, Synergy largely **supports** the adoption of the proposed SRAS costs and Cost\_LR parameters for 2021/22 as presented in the Addendum.

However, given the extensive financial impact to Synergy and in the interests of procedural fairness, Synergy requests that it is afforded the opportunity to review and comment on the proposed margin peak and off-peak parameters for SRAS prior to the ERA's final determination due 31 March 2021.

Should you require additional information regarding this submission, please contact Andrew Everett, Manager Energy Trading, at [andrew.everett@synergy.net.au](mailto:andrew.everett@synergy.net.au).

Yours sincerely



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