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Dear Sara O'Connor

SPINNING RESERVE, LOAD REJECTION RESERVE AND SYSTEM RESTART COSTS: MARGIN VALUES AND COST_LR ANCILLARY SERVICES PARAMETERS FOR 2020/21 ISSUES PAPER

Synergy welcomes the opportunity to comment on the proposed margin values and Cost_LR ancillary services parameters for 2020/21 (Issues Paper).

Clause 13.3.3A(a) of the Wholesale Electricity Market (WEM) Rules requires the Economic Regulation Authority (ERA) to determine values for the parameters Margin Peak and Margin Off-Peak, taking into account the Wholesale Market Objectives and the Australian Energy Market Operator's (AEMO) proposal which must consider the recovery of Synergy's margin of energy sales foregone in providing ancillary services as well as reflect Synergy's incremental cost of providing these services.

Synergy continues to express fundamental concerns that the proposed parameters would result in significant under-remuneration to Synergy for the ongoing provision of load rejection and spinning reserve services due to apparent deficiencies in the model outlined in the ancillary services parameter review 2019 final report[1] (EY Report).

These apparent deficiencies in modelling stem primarily from inappropriate fuel price assumptions and removal of variable operating and maintenance costs which, despite a potential underestimation of balancing prices, will result in the undervaluation of Synergy's cost of providing the relevant services.

However, Synergy considers that the proposed margins are more appropriate and cost-reflective relative to 2019/20 margin values currently in force and therefore recommends that the ERA **accepts** these margins. Further, Synergy recommends that the ERA, in order to satisfy clause 13.3.3A(a) of the WEM Rules, addresses the issues raised in this submission in the process to determine the 2021/22 ancillary service parameters.

[1] Ancillary services parameter review 2019 final report (public version), and supporting data excel files, Ernst & Young (for AEMO), 6 December 2019 (online)

Question 1: *Given the reductions in spinning reserve and load rejection reserve costs, do market participants consider the values are still too high?*

The unfortunate phrasing of this question leads Market Participants to provide an opinion as to whether they "consider the values are still too high". In addition to being inconsistent with the requirement of clause 3.13.3A(a) of the WEM Rules, this question insinuates costs should always either be maintained or lowered, but never increased.

The purpose of the determination of Margin Values and Cost_LR parameters by the ERA under clause 3.13.3A is to ensure adequate and accurate compensation for the provision by Synergy of spinning reserve and load rejection services, whatever that may be.

Synergy conducted a high-level retrospective analysis for the previous 12 months to assess the costs generated from fuel consumption for gas-fired generators used for ancillary services. After deducting the revenue from the balancing market, Load Following Ancillary Services (LFAS) market as well as the ERA approved revenue for Spinning Reserve Ancillary Service (SRAS) and Load Rejection Reserve (LRR), results indicate that remuneration for SRAS and LRR should be in the vicinity of $29m.

In the 2019/20 year, total proposed remuneration for ancillary services consisting of SRAS and LRR amounted to $15.1m. The ERA subsequently approved 77% of the recommended costs at $11.7m, which significantly under-remunerated Synergy for its actual costs in providing these services to the effect of c. $17m.

For the 2020/21 year, modelled compensation for SRAS and LRR has further reduced to $8.2m.

Synergy considers that the proposed SRAS and LRR values continue to be unduly and unacceptably low and do not satisfy the Wholesale Market Objective (a) to promote an economically efficient market, nor the requirements under clause 3.13.3A of the WEM Rules.

In spite of this, the proposed margins are an improvement to existing parameters and are more reflective of actual costs relative to existing parameters in force. Synergy considers that modelling improvements should be introduced in the 2021/22 determination to better reflect the actual costs for the efficient provision of SRAS and LRR.

Question 3: *Do market participants consider a forecast gas price of $3.50 per GJ (delivered) to be a reasonable assumption? If not, why not? What would be a reasonable basis to determine the forecast price for gas?*

Synergy notes that a backcasting and model calibration process was implemented to achieve post-optimisation time-of-day average prices and price duration curves that were more closely aligned with the actual 2018/19 prices.

This process led to the derivation of the following assumptions described on page 34 of the EY Report:

(a) a revised (decreased) Synergy gas price of $3.50/GJ;
(b) coal fuel cost reduced by 40% for Muja, Collie and Bluewaters; and
(c) gas fuel cost reduced by 40% for Newgen Kwinana and Alinta Pinjarra.

All three assumptions are critical to the determination of ancillary service parameters and Synergy formally seeks an explanation from the ERA as to why it has selectively requested Rule Participants to only respond to the first assumption.

Although Synergy does not agree with the first two assumptions, Synergy's response below focusses on the $3.50/GJ Synergy gas price revision as per the ERA's request.

It is acknowledged on page 33 of the EY Report that although "Synergy may have long-term gas contracts with costs that are higher than the range of prices listed in Table 7, the Synergy gas price in the model has been adjusted down within this range to better align the modelled balancing prices with actual historical prices". Synergy considers the focus on obtaining historically aligned modelling results at the expense of applying realistic assumptions is inappropriate because, logically, this will result in undervaluation of Synergy's cost of providing the relevant services and is indicative of underlying modelling flaws.

The forecast price of $3.50/GJ further fails to consider the following factors, all of which would logically result in the consequential ancillary service parameters under-representing Synergy's forgone revenue, or its costs associated with its loss of efficiency, due to its provision of the spinning reserve and load rejection services:

(a) Ancillary Service obligations:
As the default ancillary service provider, Synergy must always be able to provide ancillary services from its gas-fired generators. As there is insufficient gas available from the spot market in WA, Synergy must enter into firm, take-or-pay long term gas supply agreements (GSAs). The different conditions of demand and supply for gas mean that prices under long term GSAs cannot be expected to be, and in practice are not, the same as those in the spot market.

(b) [Redacted]

(c) Rationale behind gas price trends:
Recent downward pressure on gas spot prices were largely a result of increased supply from Wheatstone and Gorgon exacerbated by diminished demand post the mining boom. With recent and upcoming expiry of legacy North West Shelf contacts, trajectory of gas prices is likely to remain stagnant or increase as a result of suppressed supply. A gas price of $3.50/GJ is inappropriate, unsubstantiated and not supported by shifting microeconomic dynamics.

(d) [Redacted]

(e) EY modelling assumptions:
The downward pressure on forecasted gas prices are a direct result of the application of backcasting and model calibration exercises as opposed to macroeconomic and operational considerations. Synergy believes that the need for EY to drastically reduce coal and gas price assumptions for both Synergy and IPPs, as well as to remove variable operating & maintenance cost from specific Synergy plant, is indicative of underlying modelling issues.

Issues with the modelling approach

In Synergy's view, there are underlying issues with the modelling approach and assumptions used by EY which have a direct impact on the determination of SRAS and LRR costs. These are outlined below.

LRR requirement and Synergy's balancing gate closure:

Page 4 of the EY Report states that "AEMO anticipates that the forecast LRR requirement at the time of gate closure will be the same as the LRR requirement at the time of procurement…AEMO therefore considers that the methodology outlined in the report will account for commitment costs incurred at Synergy's gate closure and there is no additional cost which is required to be modelled in this year's review."

Synergy interprets this as meaning the LRR requirement and thereby Synergy's compensation will be determined on the requirement at the time of Synergy's gate closure. However, the existing mechanism used by AEMO to advise the market of LRR requirements is not useful, not automated and is often sent prior to independent power producer (IPP) balancing gate closures as opposed to Synergy's balancing gate closure. The assumption that the methodology outlined in the EY Report will account for commitment costs incurred at Synergy's gate closure is therefore flawed.

Synergy suggests that a better 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.

In addition, Market Participants would benefit from transparency if the actual SRAS and LRR requirements were also published ex-post.

Non-Synergy contracts:

Where LRR exceeds LFAS down quantities and is not provided by coal-fired generating units, the cost of LRR is high because gas-fired units are required to run above minimum levels and often incur out-of-merit fuel costs. Synergy therefore questions the logic behind the assumption that "No contracts have been procured for LRR historically or in 2019/20, predominantly as the *value of this service was relatively low*" (page 10 of the EY Report).

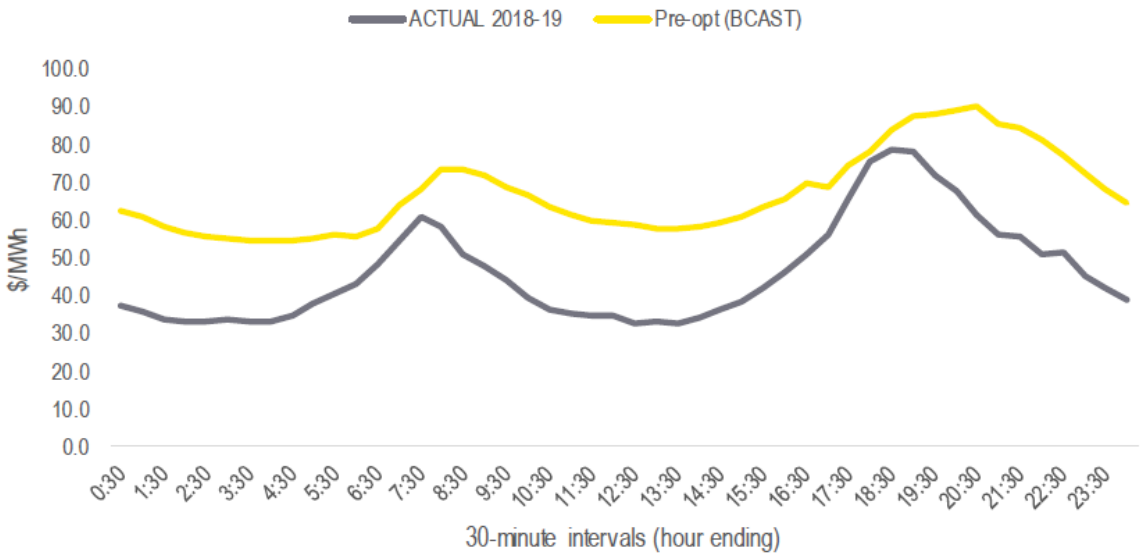
The low participation of Non-Synergy providers in the LRR market may be a function of administered revenue not being set at adequate levels, thereby hindering the achievement of Wholesale Market Objective (b) which seeks to encourage competition among generators and retailers in the South West Interconnected System (SWIS) as well as Wholesale Market Objective (a) which promotes economic efficiency.

Balancing price forecasts:

The modelled balancing price outcomes prior to backcasting calibration were materially higher than historical outcomes. Figure 8 from the EY Report shown below illustrates the fact that modelled average balancing prices were systematically higher at all times of the day when compared to actual prices.

The significant differential between actual and predicted balancing prices prior to the application of such techniques suggests the underlying model is flawed.

Figure 8: Time-of-day SWIS prices modelled in the 2018-19 backcast with unadjusted MP cost assumptions and Synergy gas price of $6.50/GJ



Backcasting and model calibration exercises:

Synergy has concerns with the reliance on backcasting and model calibration techniques employed to obtain reasonable historical results.

The backcasting approach outlined on page 28 of the EY Report utilises iterative re-simulations of 2018-19 financial year results and subsequent refinements of bidding profiles until the price and generation outcomes are satisfactory. “Refinements to the offer profiles may involve adjusting cost parameters, operating parameters and/or other input assumptions”.

It is not disclosed as to how many iterations were required to obtain these ‘reasonable results’. Synergy also notes that this methodology is fundamentally flawed as there are a multitude of combinations of cost parameters, operating parameters and/or other input assumptions that can lead to the same results.

Synergy considers that there is insufficient detail on this modelling methodology which inhibits transparency and the ability to adequately determine whether this modelling approach is reasonable.

Synergy is therefore unable to ascertain the effects of this modelling approach on the ancillary services parameters and seeks clarification as to the assurance practices that have been adopted to ensure that the combination of assumptions EY has reached is accurate.

Synergy suggests that for the 2021/22 proposal for Margin Values and Cost_LR parameters, the underlying model should be revisited such that the back-cast of the model pre-optimisation results in more reasonable outcomes, hence limiting the reliance on necessitating changes to underlying assumptions.

Operational and Maintenance Costs (O&M):

Synergy notes that another outcome of the backcasting and model calibration exercise was that “Load-independent variable O&M was set to zero for Cockburn, Kwinana GTs, Muja and Collie”.

AEMO have noted that “earlier iterations of the EY model included O&M costs for these units; however, the results did not meet expectations based on historical generator outputs. As a result, AEMO and EY made an adjustment as part of the backcasting and the model calibration.”

Similar to Synergy’s case on the forecasted gas price assumption, it again appears that the focus is not on ensuring EY assumptions accurately reflect real world practices. This is evident given that the only consideration given to remove O&M costs was based on EY model outcomes misalignment to historical outcomes.

It is inequitable and economically inefficient that Synergy is obliged to bear the full O&M costs during the provision of ancillary services. With respects to clause 3.13.3A(a) of the WEM Rules, this assumption fails to take into account “the loss in efficiency of Synergy’s Scheduled Generators" resulting from Synergy’s provision of ancillary services.

Synergy suggests that the 2021/20 determination for Margin Peak and Margin Off-peak should include O&M costs.

Conclusion:

The proposed margin values are an improvement to the grossly inadequate parameters currently in force. Synergy therefore **supports** the adoption of the proposed margin values for 2020/21 and recommends that the modelling issues raised in this submission are considered for the next review.

The ERA has also indicated that due to the New Year holiday period, the ERA has chosen to “reserve judgement on the proposal until it makes its determination” and “will review the modelling in parallel with industry consultation”. 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 ERA's revised findings and draft determination report before the ERA finalises its decision.

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

Yours sincerely

KURT BAKER
GENERAL MANAGER WHOLESALE