

Our Ref: DM#: 24418092
Enquiries: Andrew Everett
Telephone: 0417 978 890

1 April 2021

Mr Adrian Theseira
Economic Regulation Authority
PO Box 8469
PERTH BC WA 6849

Dear Adrian Theseira

Minimum STEM price review 2021

Synergy welcomes the opportunity to comment on the preliminary findings for the Minimum Short Term Energy Market (**STEM**) price review 2021 (**Issues Paper**), which seeks to establish whether the Minimum STEM Price, currently set at $-\$1,000/\text{MWh}$, is appropriate when assessed against the criteria in clause 6.20.14 of the Wholesale Electricity Market (**WEM**) Rules.

Synergy commends the Economic Regulation Authority's (**ERA's**) efforts in formulating the first review of the Minimum STEM Price and is largely supportive of the preliminary findings presented as part of the Issues Paper.

Specifically, Synergy:

1. agrees with the ERA's observations that factors other than the level of the minimum STEM price, including over-forecasting of demand and quantities for ancillary services and commissioning, led to the balancing market clearing at the floor price for the nine trading intervals during 1 October 2019 to 31 January 2021 (**Assessment Period**);
2. agrees with the ERA's preliminary findings that the Australian Energy Market Operator (**AEMO**) did not dispatch any generators down during the review period because the minimum STEM price was too high; and
3. agrees with the ERA's interpretation of its obligation to consider changes in the generation fleet under clause 6.20.14(c) and supports the proposed method of assessment.

However, Synergy does not consider the minimum STEM price of $-\$1,000/\text{MWh}$ appropriate as it is set too low and does not satisfy the objectives under clause 6.20.16 of the WEM Rules.

Question 1: Do market participants consider the minimum STEM price of $-\$1000/\text{MWh}$ to be appropriate? Please provide reasons and evidence in support of your opinion.

Synergy does not consider that the current minimum STEM price of $-\$1,000/\text{MWh}$ to be appropriate and contends the minimum STEM Price is set too low, such that it does not satisfy the objectives under clause 6.20.16 by:

- (a) allowing the balancing market to clear above the minimum STEM price in almost *all circumstances*, as opposed to *most circumstances*; and
- (b) failing to limit market participants' (specifically market generators and those market generators who do not have a contractual position) downside exposure to balancing prices that would threaten their financial viability.

(a) Clearance above the minimum STEM price:

Section 5.1 of the Issues Paper reveals that for the 23,472 30-minute trading intervals in the Assessment Period, "the balancing price settled above the minimum STEM price for ...99.96 *per cent* of trading intervals".

At 99.96%, Synergy contends that the floor price is set inefficiently low such that it fails to satisfy clause 6.20.16(a), which states that the objective of the Minimum STEM price is to allow clearance of the Balancing Market without the Balancing Price being equal to the Minimum STEM Price in *most circumstances*. Synergy encourages further contemplation on what 'most circumstances' denotes.

Under section 3 of the Issues Papers, it is also suggested that if the minimum STEM price is too high, "this may restrict the market process to discover the lowest balancing price because it will limit the extent to which generators with high cycling costs can differentiate themselves from other generators" and it may further result in inefficient dispatch outcomes.

Synergy queries the rationale behind needing to discover the 'lowest' balancing price to allow for differentiation between generators with high cycling costs and highlights that it would be challenging to do so if the Market Participant possessed a contractual position to run behind. Alternatively, Synergy suggests price discovery should be targeted towards the 'highest' threshold in order to meet the complete objective of the Minimum STEM Price.

(b) Limiting exposure to balancing prices that would threaten market participants' financial viability:

Adequate consideration does not appear to have been provided to limiting market participants' downside exposure to balancing prices that would threaten their financial viability. Notably, although balancing prices settled above $-\$1,000/\text{MWh}$ 99.96% of the time during the Assessment Period, it settled above $-\$250/\text{MWh}$ 99.95% of the time during the same period.

It is therefore arguable that the Minimum STEM price could be set at a higher threshold such that it satisfies both components of the Minimum STEM price objective outlined under clause 6.20.16 of the WEM Rules.

Synergy stresses that the ability to limit market participants' exposure to financial threats is increasingly important in light of rapidly evolving market dynamics and Synergy's function as the default provider for ancillary services.

Dilution of generation mix in the South West Interconnected System (**SWIS**) resulting from the introduction of more non-scheduled generators, coupled with increased occurrence and magnitude of balancing price forecast inaccuracies has made the reliance on ancillary services more critical than ever. These changes are explored further in the Margin Values and Cost_LR 2021/22 Determination Paper¹, which establishes that the quantity of ancillary services needed to maintain system security is increasing.

Over recent years, the WEM has experienced sustained, and steep, uptake of solar photo-voltaic (**PV**) systems that has led to the shifting of peak periods to later in the evening, commonly referred to as the duck curve. This has forced thermal units, who traditionally run a constant base load, to cycle more often. Thermal units have a minimum generation limit which they cannot generate below, and by design, were not built to ramp up or down quickly, or cycle frequently. This undue mechanical stress on thermal units may compromise cost efficiency.

In addition, sustained periods of low balancing prices have the ability to displace thermal generation, which presently provide the majority of system security services as well as additional services beneficial to system reliability including voltage control. Should base load coal generators with longer restart times be incentivised to turn off, it may be unable to restart when electricity demand increases. The ERA's observation that "in these circumstances, AEMO may not have enough cheaply priced electricity supply to match the demand and may therefore need to use more expensive generators" may then be realised, creating an inefficient market outcome.

Synergy further concurs with the ERA's assertion under section 3 of the Issues Paper that if the minimum STEM price is set too low, "some generators, such as those that provide ancillary services, are exposed where the market clears at this price because these generators must offer quantities at the minimum STEM price to provide these services".

Therefore, irrespective of its contractual position, economic outcomes and the level at which the Minimum STEM price is set, Synergy, as the default provider of ancillary services in the WEM, is obligated to bid sufficient plant at the price floor, creating exposure to the Minimum STEM Price.

Question 2:

- a) *How significant were AEMO's demand forecasts in participants' bidding decisions for the nine trading intervals when the market cleared at the minimum STEM price? Do market participants rely on their own forecast data and did this data indicate similar outcomes for these nine trading intervals?*
- b) *Do stakeholders agree that generators are more willing to use this range [-\$250/MWh and -\$999/MWh] now?*

¹ https://www.erawa.com.au/cproot/21851/2/Margin-values-and-Cost_LR-2021-22---Determination-Paper---Final-Report---redacted-version-for-publication.PDF

2(a): AEMO's demand forecasts

Although Synergy relies on its own forecast data to inform bidding decisions, AEMO's demand forecasts are still used as a comparative measure to sense check forecasting outcomes.

Prior to 8:00 AM on 1 December 2020, Synergy was obligated to submit its balancing market offers 240 minutes (for a 6-hour bidding block) prior to the start of the trading interval, while other independent power producers (**IPPs**) submitted their offers 120 minutes before the interval on a rolling basis. These differential arrangements inhibited Synergy's ability to reflect the most updated information in their balancing offers.

Although Synergy's obligation has since reduced to 150 minutes on a rolling basis, at the time of Synergy's gate closure, Synergy did not forecast the market to clear at the minimum STEM price during the nine trading intervals listed under Table 2 of the Issues Paper.

2(b): Market participants' use of the offer range between -\$250/MWh and -\$999/MWh

During the Assessment Period, the quantum of balancing market offers between -\$250/MWh and -\$999/MWh appear negligible and Synergy does not anticipate levels to materially change.

Conclusion:

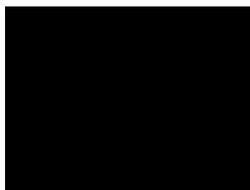
At -\$1,000/MWh, Synergy maintains that the Minimum STEM Price is inappropriate and fails to satisfy the objectives of the Minimum STEM Price as defined under clause 6.20.16 of the WEM Rules.

Synergy recommends further consideration of the consequences of leaving the floor price at -\$1,000/MWh, as well as setting a value near, or lower than, -\$1,000/MWh. If such a floor price is set, the inefficiencies associated with the market regularly clearing at that floor price for reasons other than differentiation of decommitment costs are likely to vastly outweigh any efficiencies that may occur when the market clears at or near the floor price to enable such differentiation.

Synergy recommends the ERA to consider the issues outlined in this submission and looks forward to participating in the next round of consultations.

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

Yours sincerely



LUCY KOLE
ACTING MANAGER ENERGY TRADING