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Economic Regulation Authority
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Offer construction guideline: draft report

The Australian Energy Council (the “**AEC**”) welcomes the opportunity to make a submission to the Economic Regulation Authority (the “**ERA**”) on the *Offer construction guideline: draft report* (the “**Draft Report**”).¹

The AEC is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. Our members collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to millions of homes and businesses, and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 percent emissions reduction target by 2035, and is part of the Australian Climate Roundtable promoting climate ambition.

The AEC makes the following comments in relation to the Draft Report:

Revenue adequacy and cost recovery

An energy transition is underway in Western Australia, led by a State Government that has put forward a range of commitments and proposed policies that will shift the energy sector towards more intermittent and low-emissions capacity. This transition is also being driven by private companies proactively adopting renewable energy alternatives.

It will be challenging for the market to address the increased demand for new generation. Indeed, the 2022 Wholesale Electricity Market Electricity Statement of Opportunities says that capacity shortfalls are expected from 2025-26 and these forecast shortfalls will increase to 303MW by 2030-31.² This forecast doesn't include the consequences of the State Government's economy-wide goal of net zero by 2050 and Synergy's plans to close coal-fired power plants by 2030 and build no new natural gas-fired power plants after 2030. AEMO's more recent NCESS tender forecasts a shortfall of up to 830MW by 2024, subject to generator outages.

A significant amount of investment will be required just to cover the forecast capacity shortfall, the retirement of Synergy's coal generation fleet and the State Government's net zero commitments. Despite this, the ERA's *Triennial review of effectiveness of the WEM Discussion Paper* found that “existing price signals do not provide an adequate commercial justification for investing in the new, low-emission generation and storage that would meet the WEM Objectives.”³ The ERA went on to say:

¹ See [Offer construction guideline: draft report](#)

² See p8, [2022 Wholesale Electricity Market Electricity Statement of Opportunities](#)

³ See p2, [Triennial review of the effectiveness of the Wholesale Electricity Market 2022 Discussion paper](#)

“...Prices in the WEM will not be high enough to support revenue sufficiency for wind, solar and battery storage facilities as more solar, wind and storage facilities enter the WEM, and coal and gas generators exit the market ... As a result, all generators in the WEM will face lower and lower prices, which do not allow them to recover their initial investment costs.”⁴

The ERA rightly notes that existing participants are not earning sufficient revenue. The AEC considers that the offer construction guideline, as drafted, will compound this problem by preventing Market Participants from recovering reasonable costs from the energy markets. Any offer construction guideline will be unable to capture all the circumstances and costs that must be recovered in offers, or take into account how offers often serve an operational purpose (such allowing a facility to ride-through or ramp up). The prescriptive ‘economic purist’ approach adopted in the Draft Report will result in uncertainty, complexity and costs for existing market participants and could force them into lower offers than optimal and contribute to the revenue sufficiency problem.

The offer construction guideline, in its current format, is also likely to discourage investment. The offer construction guideline signals that any offers which appear to recover more than the ERA’s theoretical view of a generator’s short-run operational costs can be considered “irregular” and trigger an investigation. This suggests to potential investors in marginal flexible technologies, which the SWIS requires, that they cannot make a margin on their electricity because if the ERA perceives that they have, they will be investigated and potentially drawn into a costly and protracted legal battle. This approach will dissuade investors from entering the market and exacerbate the forecast capacity shortfall.

It is disappointing that Energy Policy WA did not address this issue earlier despite the feedback from stakeholders during the market power mitigation framework consultation process. That aside, it is now difficult to provide meaningful feedback on the offer construction guideline given the market power mitigation framework has been progressed in isolation and Market Participants still haven’t received all the required information to provide fully informed and considered comments and raise potential concerns.⁵

In light of the above issues, the AEC encourages the ERA to avoid a theoretical economic approach to determining offers and instead assess market participants’ pricing conduct in the context of a real-world competitive market. The AEC considers that the market power mitigation framework and WEM Rules and guidelines need to allow facilities to recover their costs and a reasonable return on investment. The AEC also seeks confirmation that the offer construction guideline will be regularly reviewed and opened for consultation so that Market Participants can provide input on all of the cost components that should be included in the guideline as the market evolves, the generation mix changes, revenue adequacy fluctuates, and the market power mitigation framework progresses.

Opportunity costs and risk margins in STEM offers

The rigid approach applied in the Draft Report creates a challenge for generators bidding into the STEM. STEM offers have significantly more risks than real time offers and participants can’t be expected to have perfect foresight. Because of this, the AEC considers that generators should be permitted to incorporate the following factors in their STEM offers:

- The opportunity cost of selling their capacity in the real-time market (“RTM”) instead. For example, a facility that would be obliged under 2.16A.1 to offer its capacity at \$40 in the RTM should not be required to offer this capacity at \$40 in the STEM if prices in the RTM of \$100 are predicted the next day, all else being equal (noting that generators are required to offer into the STEM). If this participant is not permitted to incorporate the \$60 opportunity cost of selling in the STEM rather than the RTM, it would be required to transfer wealth to other participants who can arbitrage its position in the STEM. Ultimately, this would present a barrier to entry because it disadvantages participants with generation and storage capacity who are consistently required to make out of the money STEM offers.

⁴ See p13 and 18, [Triennial review of the effectiveness of the Wholesale Electricity Market 2022: Discussion paper](#)

⁵ For instance, the Market Power Monitoring Protocol and the Trading Conduct Guideline are yet to be released and Energy Policy WA has not finalised the Market Power Mitigation Rules.

- Additional allowances for uncertainty in renewable generation. Market Participants can't be expected to forecast weather, and solar and wind patterns, better than the Bureau of Meteorology when making their STEM offers. An allowance should be made for risks and errors. For example, in a hypothetical case where 500MW of wind capacity is expected in a participant's portfolio, we suggest that the participant should not be required to make 500MW of wind capacity available in their portfolio supply curve, noting the large risk that it won't be available in the RTM. Instead, the generator should be able to make much more conservative estimates about how much of their renewable capacity would be operating in the RTM, including for worst-case scenarios.

It is uncertain whether the proposed offer construction guideline would permit the above items. The AEC strongly encourages the ERA to confirm that these factors would be permitted, being legitimate sources of opportunity cost and risk that participants must manage.

Section 4.3.1 Pre-transport fuel-input cost estimation

The AEC is concerned about the proposed approach to estimating pre-transport fuel-input costs in the Draft Report. In particular, the AEC disagrees with the requirement for generators to price their fuel below their contract price because this will result in under-recovery and entrench compliance risk, dissuading investment.

The Draft Report implies that fuel costs can only be priced at the opportunity cost of gas. However, this will result in under-recovery because:

- Gas-fired generators are required to contract large volumes exceeding their market-based generation needs to meet the 14-hour fuel requirement. Noting that such an excess could inundate the small local market for short-term gas trades in WA, section 4.3.1 would require a generator with excess gas to price their fuel at near zero.
- Gas fired generators are also required to contract at least 3 years in advance to receive capacity credits. Customers must typically pay a premium to contract over such long terms, especially as the WA market is likely to continue to tighten (as forecast by the most recent GSOO), exposing them to the risk that their gas cost will be consistently higher than the replacement cost they are limited to in their offers.

The Brattle paper commissioned by EPWA notes that WA's domestic gas market is illiquid and concentrated, making it difficult to determine the 'market price' for gas.⁶ In such a shallow market, the proposed approach will entrench risk and under-recovery, and create a wide gap in perceptions of opportunity cost between the ERA and Market Participants, increasing ex-ante uncertainty.

ESS opportunity costs

The AEC encourages the ERA to amend the offer construction guideline to confirm that the opportunity cost of providing either FCESS or energy can be included in offers. By reducing generation to be available to provide a raise FCESS, a generator is forgoing energy revenue. Also, by increasing generation to provide a lower service, a generator is forgoing potential returns in the raise market. If a generator cannot incorporate these costs in its offers, it cannot co-optimize them and be indifferent about the service it provides, meaning the generator would likely withhold ESS capacity.

Section 4.4.2. Avoided start-up costs

Section 4.4.2 of the Draft Report discusses how avoided costs should be included in offers. It uses an example of a coal-fired generator that cannot restart for four hours after a shutdown and provides an offer price of -\$127/MWh to keep the facility operating at minimum generation.

⁶ See [Implementing recommended improvements to market power mitigation in the WEM](#)

The rigid approach used in the Draft Report ignores that many generators consider operational reasons when dispatching their facilities. For instance, a generator may prefer to bid at the floor price to ensure they are dispatched to ramp up for future higher-priced intervals, or the generator may seek to ride through a few negative-price intervals and remain online rather than being forced to shut down for an extended period.

The risk of using avoided start-up costs to determine optimal offer strategies is that:

1. It may create unintended consequences. For instance, in the Draft Report example, a change in the real-time price could mean that the coal generator is fully dispatched for an interval but is unable to accommodate the order. Alternatively, the coal generator may be cycled too frequently causing excess stress, increasing maintenance and shutdown and depreciation costs.
2. It may not allow facilities to operate commercially. An offer price based on avoided costs may not be low enough to ensure a facility is dispatched to ramp up or ride through.

'Capping' the minimum offer price to the avoided start-up costs will have a significant impact on generators and available generation. The AEC does not support setting a limit on the minimum offer price and encourages the ERA to take a practical approach, allowing generators to consider operational reasons when determining their bidding strategy.

Section 5: Offer assessment guidance for renewable generators

The Draft Report indicates that renewable generators should make offers equivalent to the LGC opportunity cost plus the VOM cost. The Draft Report does not address how contract positions should be accommodated in offers from renewable generators. Many renewable generators have contracted Power Purchase Agreements ("PPA"), each with different availability requirements and penalties. In many cases, these would be considered an opportunity cost for the generators and influence their bidding strategy. The AEC asks the ERA to outline how renewable generators should construct their offers taking into account their PPA positions.

Section 6: Offer assessment guidance for electric storage resources

Section 6 of the Draft Report provides guidance on constructing offers for storage assets. It says:

"Inside of the ESODI period, an ESR's optimal pricing strategy will be a combination of:

- *An offer, perhaps at the energy offer price ceiling preserving some charged capacity to meet its capacity obligations later in the ESODI.*
- *An opportunity cost offer, where the opportunity cost is the next best alternative return from discharging that energy in other trading intervals.*

An ESR could, if it were a price taker, forecast prices during a day's ESODI period and construct its opportunity cost accordingly.

Generators are free to make their own forecast of the real-time price, but like the efficient cost of thermal generators, ESRs must be able to demonstrate that their method complies with clause 2.16A.1."⁷

The Draft Report does not make any comment about including depreciation and maintenance costs in offers from storage assets. The AEC asks the ERA to clarify how depreciation and maintenance costs are recovered in offers from storage assets.

⁷ See p19, [Offer construction guideline: draft report](#)

Section 7: Record keeping

Section 7.1 and 7.2 of the Draft Report lists the records that owners must keep. The Draft Report says “These records include, *but are not limited to:*...” (our emphasis added) before providing a broad list in each section.⁸

This drafting allows for the ERA to require other, unspecified, records to be maintained by generators in addition to the already excessive list of data. The AEC suggests that this is a wide-reaching statement, especially when applied to a significant matter such as offer construction, and requests further details about what other records the ERA requires to be maintained.

For many generators, especially smaller ones with less sophisticated trading tools, the offer construction process is manual and based on subjective predictions and risk perceptions in real-time such that reverse engineering an offer to provide evidence to the ERA that every element was formed systematically is problematic. While components like fuel and VOM costs will generally be programmed, factors like risk margins, opportunity costs and how these costs are amortised will often be based on human judgement. The AEC recommends that the ERA reduce the level of detail required in records of offer construction methods and remove the expectation that each offer will be calculated using the same “repeatable” and “mechanistic” method.

The AEC also suggests that requiring records each time a decision is made to alter the offer price is excessive and duplicates the existing requirement to provide AEMO with a re-bid reason. While it is unclear what information is expected to be kept in these records, the AEC recommends that the ERA aim to apply a more practical standard: for example, records should provide a reasonable indication of how an offer was calculated, based on reasonable ranges of each offer component. It should not be required that participants have documented exactly how each offer component was calculated and amortised for each re-bid.

Conclusion

The AEC appreciates this opportunity to provide feedback on the Draft Report and encourages the ERA to consider the issues raised above.

Please do not hesitate to contact Graham Pearson, Western Australia Policy Manager by email on graham.pearson@energycouncil.com.au or by telephone on 0466 631 776 should you wish to discuss this further.

Yours sincerely,

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⁸ See p22 and p23, [Offer construction guideline: draft report](#)