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Economic Regulation Authority
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Submitted via: www.erawa.com.au/consultation

TRIENNIAL REVIEW OF THE EFFECTIVENESS OF THE WHOLESALE ELECTRICITY MARKET 2022 - DISCUSSION PAPER

Alinta Energy appreciates the opportunity to provide feedback on the *Triennial review of the effectiveness of the Wholesale Electricity Market 2022 Discussion paper*.

"What other investment support mechanisms might be needed to support investment in large-scale renewable generation and battery storage?"

Alinta Energy commends the ERA for its practical and impactful decision to focus the review on the most critical issue facing the WEM: whether it provides "adequate commercial justification for investing in the new, low emission generation and storage in a way that would meet the WEM objectives" and support "the State Government's economy-wide goal of net zero by 2050".

Alinta Energy also acknowledges the rigour of the analysis, and the consultation conducted in developing this discussion paper.

Alinta Energy's strongly agrees with the ERA's findings that the existing price signals are inadequate to justify investment in renewable generation and battery storage[1] and that the gap will grow, as more renewable generation and battery storage connects.[2] Alinta Energy recommended that the RCM review (and the SERS project) focus on this issue, noting the significant amount of investment required to meet net zero targets, how increasing intermittent generation would decrease energy prices, and the long term price signals required to incentivise long-duration storage.[3]

In response to the key question of the discussion paper, Alinta Energy considers that incentivising adequate investment may necessitate an additional mechanism that complements but is separate from the WEM's ESS and energy markets and RCM.

[1] Discussion paper (p.2) "existing price signals do not provide an adequate commercial justification for investing in the new, low emission generation and storage in a way that would meet the WEM objectives"
[2] Discussion paper (p.13 - p.18)
[3] Alinta Energy also stated that the current arrangements would not provide adequate revenue and certainty to justify investment in renewable energy and storage, noting:

- The volatility of the Reserve Capacity Price,
- The flawed RLM which significantly and increasingly understates the capacity value of renewable generation, and
- The likelihood of declining energy and ESS prices as renewable energy and storage connects.

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Alinta Energy considers that although the existing price signals will remain important, and that incremental reforms are necessary to remove barriers to investment; incremental reforms could not send price signals that are sufficiently timely, flexible, targeted, and certain to ensure the WEM procures the capacity it requires to achieve a least cost and orderly transition.[4]

Alinta Energy notes that the intent behind the State Government's recently published draft policy principles would be to implement an additional investment mechanism for low emissions generation and storage by providing for penalties to be levied on high-emissions generation and then assigned to alternative "firming" technologies.

However, Alinta Energy considers that as drafted, these policy principles would not resolve the issue identified by the discussion paper due to the following concerns:

1) The principles do not outline the policy's objectives. While it can be inferred that the objective is to accelerate WA's energy transition, without clearly stating this, balancing it with other necessary objectives like maintaining reliability and minimising costs, and outlining a policy development process to achieve these objectives, the principles may fail to deliver an orderly and least-cost transition.

2) The requirement for no net cost to customers may cause a disorderly transition by:

   - incentivising existing capacity to retire before new capacity can replace it; and

   - signaling sovereign risk and undermining incentives to invest.

3) The principles only reference "firming" resources rather than including all low emissions generation and storage.

4) The principles should aim to avoid creating a perverse incentive for proponents to defer investments until the reserve capacity cycle where the reforms are finalised.

5) The principles should not be constrained to the RCM – an external mechanism may minimise complexity and better serve the objective of delivering a least cost and orderly transition.

6) The principles should promote competitive neutrality noting the significant first mover advantage identified by the ERA.

Alinta Energy recommends that the ERA consider how the Government's proposed mechanism should be designed to avoid these concerns, resolve the central issue identified in the paper and thereby deliver the low emission generation and storage investment the WEM requires.

To this end, Alinta Energy recommended that the principles be amended to:

1) instruct EPWA, in consultation with industry, to firstly identify an emissions reduction pathway for the SWIS that:

   - supports the State's net zero by 2050 targets

   - is cost-effective, especially compared to the cost or reducing emissions in other

[4] Further commentary on this is provided on page 5 of this submission.

sectors;[5]

- is feasible in terms of the additional costs passed onto the market; and maintains reliability.

Alinta Energy notes that the recently announced 'interim assessment of electricity demand', presents an opportunity to complete this.

From here, EPWA, in consultation with industry would be able to identify what additional incentives or tenders are required to achieve the investments and capacity exits necessary to achieve the pathway.

2) Require the principles to minimise, rather than totally prevent, costs being passed through to consumers, to avoid undermining incentives to invest and risking a disorderly transition.

3) Avoid the principles incentivising investors to defer projects until after the reforms are finalised.

4) Explicitly state that the principles need not be limited to the RCM, as this would constrain their effectiveness.

5) Introduce a requirement to support competitive neutrality, noting how Synergy's current subsidies and competitive advantages threaten to block private sector investment.

Finally, Alinta Energy notes that the WEM's revenue adequacy and investment uncertainty issues are not unique and other states are implementing separate mechanisms to deliver large scale renewable energy and storage. While problematic in the context of the interconnected NEM, policies like NSW's LTESA scheme and Victoria's Renewable Energy Target could inform the design of a WEM mechanism. However, adjustments would be required to ensure the WEM's mechanism minimises risks for consumers and taxpayers and is fit for purpose in the context of the small, isolated, peaky, and 'stringy' SWIS.

Other barriers to investment that should be removed to support adequate investment in low emissions generation and storage

As noted above, while Alinta Energy considers that incremental reforms alone will not be sufficient to deliver the investment the WEM requires to meet the WEM objectives and net zero targets, it considers reforms are necessary to remove the following barriers to entry.

Network planning and investment

As noted in its submission on Western Power's AA5, Alinta Energy considers that significant investment in transmission capacity will be required to support the influx of low emissions generation needed to meet net zero targets. Otherwise, network constraints would create substantial investment uncertainty and delay the transition.

[5] p.93 of the paper highlights the importance of this, with the cost of reducing the last 10% of emissions to net zero being ~7 times higher than the cost of reducing the system's emissions from 20% to 10%. As noted, prices would have risen further too, but the cost of installing additional battery storage exceeded the assumed cost to consumers of shedding load, producing 59 periods of unmet demand in the modelling, rather than additional price increases (p.13). The Grattan Institute has also analysed the high cost of achieving absolute zero emissions in the electricity system and recommends that Australia should commit only to net zero emissions in the NEM by the 2040s, not absolute zero emissions or 100 per cent renewable energy - Go for net zero: A practical plan for reliable, affordable, low-emissions electricity

Alinta Energy also notes growing concern, including from the former ESB chair, Kerry Schott[6] that traditional cost recovery methods and investment triggers for transmission upgrades will not be fit for purpose to enable the significant investment in renewable energy required to meet the 2050 net zero emissions target. Given this concern, and how critical transmission investment will be to the energy transition, Alinta Energy requests the ERA provide commentary on this issue.

Network connection process

Besides additional investment, Alinta Energy considers that the network connection process will also need to be significantly overhauled to both expedite it and make it fit for purpose to support an orderly transition. Alinta Energy is concerned that the current process, which was predicated on an unconstrained model, would create a significant bottleneck, and not meet to users' needs as more projects seek network connections, and large industrial businesses look to electrify.

The RLM's increasing understatement of capacity value

The current RLM represents a barrier to entry because it increasingly undervalues intermittent generation as more intermittent generation connects. By only assessing the contribution of intermittent generators during the demand net of intermittent generation intervals, the current method ignores the contribution intermittent generators have made in reducing the loss of load probability during peak demand intervals such that the at-risk periods no longer occur during these times. Increasing intermittent generation exacerbates this issue as it ignores contributions every time these intervals shift, further goal seeking to where the output of intermittent generators is even lower, and thereby reducing the capacity value assigned to all intermittent generators. For example, the capacity value of Walkaway Wind Farm in WA has halved in the 6 years since the method was introduced.

These issues were identified in the ERA's 2018 review of the method (published March 2019). However, rectification has been delayed for at least three years: firstly, by the ETS, and then by the RCM review.

As outlined in the RCM Review Working Group meetings, Alinta Energy considers the proposed Delta Method would not rectify this issue noting that it would send an extremely volatile price signal, allocating CRC based on as few as 12 intervals across 3 days, according to Alinta Energy's analysis. However, Alinta Energy considers that the ERA's proposed method, Collgar's proposed 'hybrid' method, and the time-based concept Alinta Energy proposed could help to resolve the issues identified in the 2018 review and remove the barrier to entry the RLM currently presents.

Overly conservative fuel requirements

Alinta Energy considers that overly conservative fuel and storage accreditation requirements may also present a significant barrier to entry for new projects. Alinta Energy is concerned that the current 14-hour fuel requirement overstates future system needs, unnecessarily increasing costs to customers and undermining investment cases. Further, given the revenue adequacy issue identified by the ERA, and that fuel capacity (or storage) costs are not incorporated into the BRCP, Alinta Energy suggests that the WEM may require a model where capacity is rewarded for having longer storage or fuel duration, rather than not being accredited or penalised for having a duration less than the determined requirement.

[6] Herald Sun, *Call for rethink on funding for power transmission upgrades*

Market Power Mitigation

The paper highlights the difficulty in applying SRMC obligations on participants with storage, noting the more complicated and dynamic calculations required to determine their SRMC. Alinta Energy considers that reforms to the market power mitigation framework are required to permit this flexibility and give investors enough confidence that they can recover their costs in the real time market without fear of undue breach allegations.

Storage regulation

Alinta Energy recognises that the reforms to the WEM which allow storage to participate are an important step towards facilitating investment. However, Alinta Energy considers that significant barriers remain, including the requirement for storage to reserve capacity for 4 hours per day despite this capacity not being required during most of these periods.

Responses to remaining consultation questions

"What changes might be needed to the pricing of capacity credits in the SWIS? For example, what framework is to be used for determining the reference technology for setting the price of capacity credits?"

Alinta Energy supports reforming the BRCP to incorporate the costs of longer duration storage. However, Alinta Energy is concerned that a net cone approach may introduce significant complexity for negligible benefit, and potentially undermine investment certainty noting the difficulty of forecasting the energy and ESS revenues a storage facility may derive from the WEM to adjust the BRCP.

"What benefits would locational marginal pricing bring to the WEM and how could the costs of locational marginal pricing – uncertainty and price volatility – be managed?"

Alinta Energy doubts that locational marginal pricing would be fit for purpose for the WEM, considering that the WEM's small size would make prices too volatile to meaningfully influence investment decisions and this volatility may undermine investment certainty. Alinta Energy also notes that the significant level of government ownership in the market may dull any response to these price signals.

Further commentary on why Alinta Energy considers why a separate mechanism (rather than incremental market reform) is required to deliver adequate investment.

Compared to incremental reforms, Alinta Energy considers that a separate mechanism would be better placed to:

- Deliver the investment that is required**.** Creating markets to deliver this investment could be fraught: it would require policymakers to forecast, codify and price all the capabilities the WEM will require to meet its objectives as it transitions (e.g. congestion relief, flexibility, storage duration etc.). This presents the following risks:
    - *Missing markets*: Policymakers may fail to identify the capabilities the WEM needs to value to incentivise investment.[7] A separate investment mechanism could avoid this by

[7] For example, it was expected that the new ESS markets would support investment and address missing market issues. However, the paper highlights that although helpful, these markets are inadequate and the current RCM review has identified numerous further capabilities that may need to be valued. This indicates a perennial risk of missing markets. Further, once established, Alinta Energy notes than any market will be a smaller subset of the already small WEM, making its price signals likely to be very volatile and exposed to new entrants (like the ESS markets).

using staged, piece-meal tenders with different merit criteria.

- *Excessive red tape*: Accreditation criteria for the new capabilities or capacity types may be too restrictive or onerous, unduly excluding investors or imposing excessive costs. A separate investment mechanism could avoid this by using merit criteria, rather than accreditation criteria.

- *Missing money:* The price applied to the new capabilities might underestimate the efficient cost of supply.[8] A separate investment mechanism could avoid this by having prices determined by competitive tenders.

- *Price uncertainty:* Pricing capabilities in real time markets would not provide investors with enough long-term certainty (like the current ESS markets), while capacity-style prices may be too volatile, considering the steepness of the current price curve, and that creating capacity sub-types creates smaller and lumpier markets. A separate investment mechanism could avoid this by employing long term contract for difference schemes or options (like NSW's LTESA).

- Send timelier investment signals**.** Even if all the reforms outlined above could be implemented perfectly and avoid the identified risks, Alinta Energy considers that they could not be implemented in time for when the WEM needs capacity, especially considering the lead time of recent reforms and the RCM Review. Alinta Energy notes that AEMO's 2022 ESOO (p.8) forecasts the excess to be near zero by as soon as 2024 and become increasingly negative thereafter. Alinta Energy also notes that there is a need for capacity even sooner than these reported excesses suggest, considering the POE forecasts for 2022 and 2023 were understated, having been exceeded multiple times in early 2022.

- Support more targeted, fit for purpose investments. While markets require potentially complex reforms to ensure they continue to efficient investments as the SWIS evolves, an investment mechanism would support price signals being more flexible and responsive to changing needs. For example, tenders could be staged and the merit and eligibility criteria for each tender could be adjusted to signal the investment the WEM needs given past investments and a more current view of forecast demand and technical requirements. Alinta Energy considers that this is particularly important given the small size of the WEM which makes investments 'lumpy'.

- Support competitive neutrality**.** As evidenced by Synergy's Kwinana battery which will be totally funded by subsidies and installed prior to the ESS markets being operational,[9] Synergy can front-run markets, and undermine the price signals these markets aim to provide. Even the perceived risk of this is a significant barrier to investment tin the WEM. Synergy's planned investment in 800MW and 2000MWh of storage will amplify this. A separate mechanism can avoid this risk by providing long term price signals that are not exposed to government intervention. Further, merit criteria would support a more level playing field as projects would be developed based on their merits rather than which project has the government funding necessary to executing it regardless of the risk.

Conclusion

Alinta Energy strongly supports the approach and findings of the ERA's discussion paper, which considers that current price signals are not sufficient to deliver the investment required to meet

[8] Alinta Energy perceives this risk given the complexity and forecasting involved in current pricing mechanisms like the BRCP and the potential volatility of infrastructure costs with increased global demand for low emissions energy technologies.

[9] Per the Government's announcement, Synergy's Kwinana battery will receive $140 million of State funding and $15m of federal funding and be installed in late 2022 about a year before the battery will be able to access its primary revenue streams in the ESS markets with the start of the new WEM in October 2023.

the WEM objectives and net zero targets.

Alinta Energy recommends that a separate mechanism is required to resolve this issue, considering that incremental reforms would not be sufficiently timely, flexible, targeted, certain and competitively neutral to ensure the WEM procures the capacity it requires.

The recently published draft principles may support such a mechanism but require material amendments to ensure they deliver an orderly and least cost transition, support competitive neutrality, and avoid incentivising investors to defer their projects.

Alinta Energy recommends that ERA consider how this mechanism should be designed so that it resolves the key issue identified in its analysis and meets the WEM objectives.

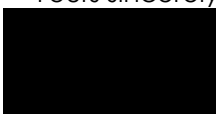
Alinta Energy suggests that designing this mechanism should involve EPWA, in consultation with industry firstly identifying a least cost and orderly emissions reduction path for the SWIS. Then, this analysis could be used to identify what additional incentives or tenders are required to achieve the pathway.

Removing other barriers to investment, including in the RLM and network planning and access regime will also be critical.

Thank you for your consideration of Alinta Energy's submission.

If you would like to discuss further please contact me on jacinda.papps@alintaenergy.com.au or 0417 065 955 or Oscar Carlberg on oscar.carlberg@alintaenergy.com.au or 0409 501 570.

Yours sincerely



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