

26 August 2022

Rajat Sarawat  
Executive Director, Energy Markets  
Economic Regulation Authority  
Level 4, Albert Facey House, 469 Wellington Street  
Perth WA 6000

[publicsubmissions@erawa.com.au](mailto:publicsubmissions@erawa.com.au)

Dear Mr Sarawat,

Water Corporation welcomes the opportunity to contribute to the Economic Regulation Authority's (ERA) Triennial Review of the Wholesale Electricity Market (WEM), which focusses on how to best secure reliable, clean, and cost-effective energy supplies for WA.

Water Corporation has been an active participant in the WEM since its inception in 2006, as one of the largest industrial electricity loads in the state.

Recently the Corporation adopted a new strategy, Thrive by 2035, which commits us to net zero greenhouse gas emissions by 2035, and by 2030 for its Southwest Interconnected System (SWIS) needs to produce water amid a drying climate.

Like the ERA, Water Corporation is keen to ensure that the transition to a cleaner, more reliable energy system is done in the least-cost way possible.

As your report highlights, incentivising investments that provide the highest benefit with the lowest cost to both the SWIS and to investors will support the WEM to achieve its net zero targets on time and at the lowest sustainable cost to electricity consumers.

Modelling done by the Water Corporation indicates its lowest cost pathway to decarbonisation will be initially via the procurement of 400MW of wind and 225MW of battery storage at distributed sites. Water Corporation is separately collaborating with Synergy on medium duration pumped hydro storage projects.

As a result, Water Corporation is keen to ensure that disincentives for new renewable generation projects and energy storage are minimised.

Water Corporation offers these high-level views in respect to the storage and renewable energy procurement components of its strategy and would be happy to discuss them further.

#### **Incentives/Disincentives for Renewable Generation**

As the ERA notes, energy prices for renewably produced generation are likely to fall over time, given these projects' low marginal cost of production and growing entry of renewable energy providers.

Given the Water Corporation's long-term energy needs, but it's short-term investment costs to secure these supplies, the review should consider how long-term price forecasts may affect near-dated investment decisions. **Without adequate consideration for long-term market incentives outside of energy payments, it may be that reduced longer-term revenue expectations deter short-term investment in needed renewables.**

The Water Corporation also notes the ERA is separately considering Western Power's Access Arrangement.

As other Government Agencies, including Infrastructure WA, have detailed, **Water Corporation is keen to ensure that investment in transmission capacity keeps pace with the demand for renewable generation.**

Water Corporation will, for example, build a new desalination plant at Alkimos to be powered in net terms by renewable energy by 2028.

While raised as a potential load in planning discussions, this project was not approved at the time of Energy Policy WA's last Whole of System Plan (WOSP), or Western power's AA5 submission.

As such, Water Corporation is keen to ensure that the wholesale-market-only-focus of the WOSP, does not overlook connection and locational constraints to major projects, including potentially Alkimos meeting its net zero requirements. Equally, it encourages the ERA to consider these potential transmission constraints when assessing AA5 and Western Power's proposed investment in transmission assets.

Water Corporation similarly welcomes the recent State Government announcement to undertake a fast-tracked assessment of new and existing demand for renewable energy for the SWIS, to ensure sufficient transmission capacity for renewable energy projects.

### **Incentives/Disincentives for Storage**

Water Corporation plans to use battery storage to help it reduce the costs of participating in energy markets. As variable renewable energy becomes the dominant source of generation in the WEM, it is likely that essential system services – ultimately paid for by loads or customers – will rise, to help balance the system.

As such, Water Corporation believes storage will help it move as quickly and as affordably as possible to net zero by 2035. There is also an opportunity for Water Corporation's distributed level storage to assist the entire electricity system move to a renewable future, by helping Western Power deal with localised constraints and avoid costly traditional investment in poles and wires.

For clarity, Water Corporation does not envisage being a participant in the arbitrage segment of the market.

However, as the ERA highlights, incentives for storage and their participation in essential system services are still under development. This introduces risk to investments in this critical area. It is essential that these items are clarified as quickly as possible.

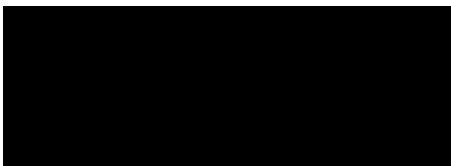
Water Corporation is keen to ensure that new rules and incentives support as much storage as possible. To this end, Water Corporation would recommend:

- Consideration of additional incentives for longer-duration storage (including pumped hydro). The scale of storage required by the SWIS is unlikely to be met solely from battery storage, and system planners need to ensure that this is recognised in encouraging capital-intensive storage such as pumped hydro.
- Clarification of treatment of storage co-located with loads. The significant economic benefits of using existing grid infrastructure along with potentially deferring the need for network upgrades could be lost if a single storage connection is required to manage load and battery. Treating the storage and load as separate facilities with the same connection point allows them to be treated within the market consistently with costs and benefits being apportioned appropriately for the asset type.
- Clarification of how and when batteries will be able to provide synthetic inertia services to the market as traditional synchronous generation leaves the system.

Separate to the WEM review, Water Corporation notes that, currently, a generator pays network charges to supply electricity to the SWIS and loads pay a network charge to use power from the grid. For comparison, battery storage in the NEM may pay both generation and load transmission costs. This represents a significant barrier, potentially, to storage investment.

Water Corporation would support tariff reform that reduced the potential two-way impost on battery systems. One potential solution is for Western Power to introduce a dynamic tariff, according to the use of the battery (import or export), and the needs of the network and WEM at different times of the day, in order to encourage a more efficient energy system overall.

Regards,



Matthew Cronin

Commercial Director – Growth