AUSTRALIAN ENERGY REGULATOR

Our Ref: 17863289
Contact Officer: Stephanie Jolly

20 February 2025

Associate Professor Tim Nelson
Chair – National Electricity Market Wholesale Market Settings Review

Dear Tim

Re: NEM Wholesale Market Settings Review Initial Consultation

The AER welcomes the opportunity to respond to the NEM Wholesale Market Settings Review (Review) Initial Consultation. We consider the Review is an important and timely action to support shaping the NEM to deliver efficient markets that best serve the long-term interests of consumers.

Our submission would like to highlight the recently released AER Wholesale Electricity Market Performance Report 2024 which outlines key recommendations and questions on new market design the panel should consider.[1] Further detail can be found in our report, but at a high level, new market design should enable wholesale market participants to recover their long-run marginal costs, while meeting emissions objectives at the least cost to consumers. We consider market design reform should consider options based on their ability to:

- enable market entry of technologies and products that can help manage intermittency of supply and volatility of demand, both intra-day and seasonal shifting
- enable innovation in risk management products to reduce the costs of volatility and support competition
- deliver competitive tension in the provision of energy, firming and of essential system services.

The AER encourages the Panel to be pragmatic in identifying practical and deliverable solutions. It is important that its recommendations can be delivered in a timely way to enable the ongoing investment in and operation of the market necessary to ensure system security and reliability, and meet emissions objectives, at lowest cost. The AER's focus in engaging with the Review will be on consumers, competition and the enforceability of the framework.

[1] AER, Wholesale electricity market performance report 2024, https://www.aer.gov.au/publications/reports/performance/wholesale-electricity-market-performance-report-2024

The panel has sought comment on five initial areas of inquiry. We consider the topics of investment incentives, changing nature of spot electricity prices and enhancing competition should be treated as high priority as they are not being considered in other reform work or reviews. We have concentrated our comments on these issues.

Investment incentives, the changing nature of spot prices and enhancing competition

Our future wholesale electricity system will need to comprise a range of capabilities and services to deliver secure, reliable and low emissions energy at lowest cost as it transitions. Future market design may need to reward both the quantity of generation supplied to the market and availability of generation and essential system services at times when reliability or security are at risk.

There are a number of features of current market dynamics that we would like to highlight to the panel as it considers the market design characteristics that can ensure the system meets these needs.

First, since 2022, we have seen a significant reduction in generator offers in the $0-100 range. This is particularly notable in South Australia where the mid-priced offers have now all but disappeared. This dynamic is resulting in increased price volatility and creates greater incentives for participants to withhold capacity with the intent of benefiting from the higher prices this can create. Both of these effects can contribute to higher wholesale prices and increased contracting costs.

A case study we examined in our Report indicates that, at least in certain instances, participants can take advantage of market conditions to make significant financial returns from this strategy. While the case study analyses the behaviour of one participant, we consider that market conditions in South Australia have created an opportunity for many participants to exercise this strategy and the incentive is particularly pronounced for marginal thermal generators who may struggle with returns on average.

We have also observed coal generators in other regions offering into the market at prices well above costs and contributing to high price events, with a flow-on impact on contract markets.

The current market design enables this type of offer behaviour to occur on the basis that it sends a price signal for investment. However, we recommend the review should consider whether this is effective. This could include consideration of the role of the market price cap and cumulative price threshold, the potential role for availability or performance payments in supporting efficient provision of services required to maintain reliability and security and the potential role for any strategic reserves or out-of-market back up arrangements. It should also consider the role for regulatory solutions in curtailing any behaviour that could detract from the efficient provision of services as the market transitions e.g. the potential for marginal and ageing generators to exercise market power to push up prices without sufficient competitive constraint.

Second, contract markets are responding to these shifts in spot markets. However, there are challenges in the suitability of the current contract product mix and the cost of risk management is increasing. One notable change in this respect is that swaptions are now the most widely traded contract, and they are being traded earlier, have higher premiums and are being exercised and converted into base futures at a higher volume. Swaptions are attractive to buyers because they allow them to hedge further into the future without the cash flow risks of margining, in exchange for a fixed up-front cost. Capping prices further in advance helps guard against unforeseen future shocks. If market conditions become more favourable, buyers can simply let the swaption expire. However, these additional features

come at a cost. Sellers have been willing to take on more of the risk through these products, in exchange for higher premiums.

The situation in South Australia is slightly different. We have observed ongoing low and declining levels of contract trading in this region. Our analysis of the contract positions of selected large participants in the South Australian market indicates they are mostly internally hedged and have reduced their contracting levels over recent years. This could be due to aging assets with reduced reliability, the changing role of thermal plant and risk preferences, or the inability of the market to clear at the desired volumes or price. Both wholesale market price volatility and the unsuitability of standard hedging products to manage this volatility may make the South Australian market risky for smaller retailers that do not own generation assets or other risk mitigation strategies such as the use of virtual power plants.

Third, issues of market concentration and competition need to be considered across the range of services and capabilities the market needs, not just in aggregate.

New entry since 2021–22 has led to lower aggregate market concentration in NSW, Victoria and South Australia. Market exit also contributed to declining concentration in NSW and South Australia, with AGL closing and mothballing coal and gas units. Diverse ownership of renewable generation means concentration is lowest when these assets are generating. As a result, concentration is now much lower during the middle of the day, particularly in Queensland and NSW.

However, ownership of dispatchable generation remains concentrated and a few large participants are often needed to meet demand outside of solar hours. This increases the scope of those participants to exercise market power. The top 4 participants control 69% of the dispatchable generation in Queensland, 87% in NSW, 88% in Victoria and 86% in South Australia.

Fourth, efficient operation of and investment in generation in part depends on transmission access. Over the 5 years up to and including 2023, network congestion has increased significantly, with parts of the network continuing to be used more heavily.

Some level of congestion is a normal feature of an efficient network, but excessive congestion, if sustained, suggests insufficient or absent locational price signals. A lack of locational signals risks over-investment in both generation and network infrastructure. Participants can connect in areas of the grid with limited hosting capacity and limited incentives to coordinate with large-scale storage, leading to transmission congestion and curtailment of generation. It also contributes to operational inefficiencies as higher priced generation may be dispatched (and may be able to bid strategically to drive up prices) where otherwise more competitive generation is constrained, and participants (especially storage) are not rewarded for their ability to reduce congestion.

The status quo requires continued government direction and coordination of investments. This may address some issues of locational investment in generation but will have limited effectiveness in addressing operational inefficiencies arising from congestion. Reform is necessary to return to effective market-led investment and operation of generation beyond the horizon of government programs.

Finally, we observe that, in considering any solutions, future market design also needs to factor in current government investment schemes. While the Review is considering enduring solutions beyond these schemes, it is important to consider how the incentives inherited in, for example, underwriting contracts will continue to drive participant behaviour beyond 2030.

We appreciate the opportunity to provide input on the initial consultation and welcome the opportunity to continue engaging throughout the Review.

Yours sincerely

Clare Savage
Chair
Australian Energy Regulator

Sent by email on: 20.02.2025