



19 October 2020

**Dr Kerry Schott AO**  
Chair  
Energy Security Board

By email to [info@esb.org.au](mailto:info@esb.org.au)

## Re: ASX Response to Post 2025 Market Design Consultation Paper

ASX welcomes the opportunity to comment on the Energy Security Board's (ESB) Post 2025 Market Design Consultation Paper

### About ASX

ASX supports Australia's energy markets through the operation of its existing capital, futures and options markets. ASX also provides opportunities to invest in publically listed energy, renewable energy and clean technology companies.

ASX energy markets are comprised of futures and options over Australian Electricity, New Zealand Electricity and Australian Natural Gas. ASX Australian Electricity futures and options are standardised and centrally-cleared financial contracts. They are structured as cash-settled contracts against the NSW, Victorian, Queensland and South Australian regional reference nodes in the National Energy Market (NEM). They provide a robust mechanism for companies that have an interest in or exposure to the NEM to anonymously manage price and counterparty risk. The ASX forward prices provide transparent and robust price signals which help to drive investment in the NEM.

ASX's submission does not attempt to cover all of the issues raised in the consultation paper but focuses on the critical role that financial products and financial markets can play in facilitating the risk management activities of entities operating within the NEM. Each question has been answered separately for ease of analysis, but we have also highlighted the interdependencies between some of the proposals, especially in terms of their combined potential impacts on the provision of a transparent, liquid contracting market and forward price signal.

### RESOURCE ADEQUACY MECHANISMS – MARKET DESIGN INITIATIVE A

**4.4.3 Do you have views on whether the signals provided by an expanded RRO based on financial contracts or a decentralised capacity market would provide the type of incentives participants need to deliver the amount and type of investment needed for a post-2025 NEM in a timely manner? What are the benefits of this approach? What are the costs and risks?**

The activation of the RRO in South Australia has caused a material increase in transparency and liquidity in longer dated South Australian electricity contracts on the ASX24 market. This is shown in the below diagram which compares the number of two way markets in the obligated period before and after the triggering of the RRO.

### Days with a two way market in the 11th contract

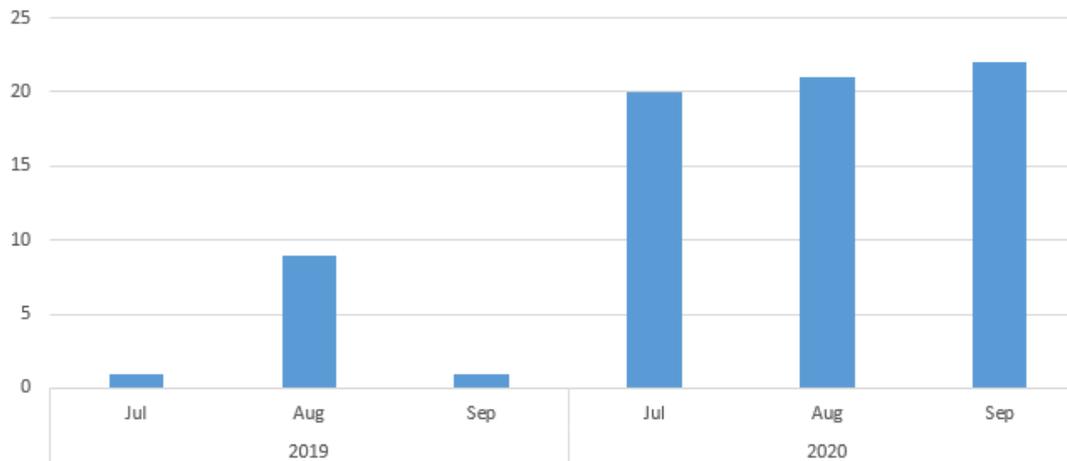


Chart 1. Showing the number of days with both a bid and an offer at the market close for the 11<sup>th</sup> quarterly base futures contract in South Australia.

This clearly demonstrates that an active Mandatory Liquidity Obligation (MLO) increases transparency in forward prices and provides more useable investment signals. We expect that expanding the RRO by removing the RRO trigger in each State would also provide this increased transparency in an ongoing manner across the NSW, Victoria, Queensland and South Australian electricity markets.

The financial contract markets for Australian electricity currently provide limited transparency beyond 3 to 4 years forward. In order for ASX to list longer dated contracts there must be a minimum level of liquidity to enable ASX to be the buyer to every seller and the seller to every buyer. An expanded RRO with a continuous obligation and longer obligation period could provide this liquidity and therefore enable ASX to list longer-dated Australian electricity contracts in line with the RRO obligation period, providing longer dated investment signals.

We consider that expanding the RRO is a significant step on the path to a decentralised capacity market while minimising the structural change to the market. In time, the impact of the expanded RRO can be assessed and physical backing introduced if required, transforming it fully into a decentralised capacity market.

A continuous RRO will assist in maintaining liquidity and transparency of forward curves which is particularly important in light of the other market design initiatives. In particular the move to Locational Marginal Pricing (LMP) is likely to have a detrimental impact on market liquidity, but if an expanded RRO is in operation before LMP is introduced this may help to maintain robust forward curves.

## **SCHEDULING AND AHEAD MECHANISMS – MARKET DESIGN INITIATIVE D**

### **7.4.1 The ESB is interested in stakeholder feedback on the options for the ahead mechanisms we have outlined. Are there additional options? Are the options for a UCS and UCS + ahead markets fit for purpose?**

Option 1 the introduction of UCS and Option 2 the introduction of ahead markets for system services are likely to have limited impact on the existing forward contract market. As a result ASX does not have a strong view on their introduction.

Options 3 and 4 include the introduction of an ahead market for energy. The consultation paper identifies that this will create two reference prices and suggests that the majority of forward contracting will coalesce around a single reference price. While in the long term this may be the case, there is potential for disruption to contract market liquidity in the short and medium term.

Liquidity in a futures market is not something that can be taken for granted. On the contrary, liquidity is a relatively fragile feature of many markets. Exchange-traded markets typically have superior liquidity to over-the-counter markets due to their standardisation and credit intermediation. Standardisation is an important feature that tightens prices and

---

increases liquidity as volumes are gathered in to a limited number of contracts. An increase in the number of reference prices, and therefore an increased number of associated financial contracts, can undermine this standardisation and split liquidity across the financial contracts. Therefore there is a trade-off between granular prices and liquidity, and in turn an impact on the robustness and/or availability of associated forward curves.

Consideration should be given to the interaction of the initiatives. For example, an expanded RRO can help to maintain robust forward curves and may assist with maintaining investment signals if ahead energy markets are introduced, while introducing locational marginal pricing (LMP) may harm liquidity. Carefully managing the timing and interaction of the different market design initiatives, with monitoring and review at each step, is needed to ensure the contract market stays robust. It will also be important to ensure that liquidity in the contract market is not fragmented to such an extent that its effectiveness as hedging mechanism for the physical electricity market is materially impacted.

### *TRANSMISSION ACCESS AND THE COORDINATION OF GENERATION AND TRANSMISSION – MARKET DESIGN INITIATIVE G*

#### **10.3.4 NERA Economic Consulting's modelling of benefits of introducing transmission access reform in national electricity market**

**What do you think about the modelling? What does this suggest about how fit for purpose current access regime is? What does this reveal, and what are insights, about how power system will change over time, and how risks of congestion will be managed by generators?**

The NERA modelling concludes that there will be limited impact on contract market liquidity by the introduction of Locational Marginal Pricing (LMP). This conclusion is based on some significant assumptions.

The report acknowledges that the basis risk between the localised price and the hedgeable regional price will negatively impact the contract market, but assumes that the availability of Financial Transmission Rights (FTRs) will mitigate this.

FTRs allow participants to manage the risks of locational price differences by paying out on the differences in localised marginal prices arising due to congestion. FTRs are an option style product that only pay the positive difference between prices.

For the assumption that the availability of FTRs will mitigate the impact of LMP on the contract market to hold, FTRs must be available to generators at the right time, at an acceptable price, and in sufficient quantities. There are a number of reasons why this may not be the case.

- **Timing:** Generators will be able to purchase FTRs at auctions which are expected to held periodically and allow for the purchase of FTRs up to 10 years ahead. In order to bid for these FTRs generators will need to make assumptions about absolute and relative pricing, as well as generation levels. These assumptions are likely to be made at a different time to hedging decisions. While each generator is different it is common for broad hedges to be placed 1-3 years ahead with the proportion of hedging increasing as the timeframe shortens. These hedges can then be adjusted as new information is received. The number of FTRs required is likely to be known in a similar timeframe. If a generator's assumptions prove to be incorrect, it may not secure the required number of FTRs. This risk is elevated when participating in auctions for the purchase of FTRs further ahead where these assumptions will be less robust.
- **Availability:** the volumes auctioned of an FTR between 2 nodes will be less than transmission capacity between the two nodes. This is to ensure that the revenue generated by the price differences is sufficient to fund the payout of the FTR. This suggests some generators will not be able to secure the required number of FTRs appropriate for their particular location at auction, or that pricing may be very high as a result of this shortfall.
- **Suitability:** at least initially there will be a limited number of localised prices covered by FTRs. As a result, some generators will not be able source suitable FTRs appropriate for their particular location.

---

If any of these reasons result in generators not having sufficient FTRs then the NERA modelling suggests that there will be a negative impact on contract liquidity.

The impact of changes on liquidity can be difficult to quantify but we do know that standardised markets gather liquidity and lead to tighter prices and improved transparency. This can be seen by comparing exchange traded markets to over-the-counter markets. Locational Marginal Pricing will have the impact of increasing reference prices and, where this results in an increase in associated financial contracts, will also have the effect of decreasing standardisation and fragmenting liquidity. Therefore there is a trade-off between granular prices and liquidity, and in turn an impact on the robustness of associated forward curves. While this impact is difficult to quantify, small changes in liquidity can create a feedback loop where reduced liquidity results in wider spreads and higher margin costs, further reducing liquidity. The reverse of this has been seen recently in New Zealand where increased market making has led to tighter spreads, and improved liquidity, which has caused more participants to enter the market further enhancing liquidity and the quality of the forward curves.

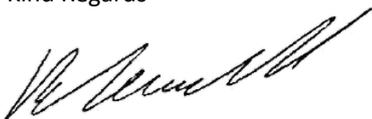
A benefit of LMP is that investment signals will change to take in to account congestion. Contract forward prices are key part of investment signals and any deterioration in them must be offset against gains from LMP. This highlights the interplay between the different streams of market design: less liquid forward curves as a result of LMP may reduce the investment signals that are key to Market Design D, while an expanded RRO under Market Design A may improve the robustness of investment signals.

ASX requests that, in assessing the move to LMP, the impact of all market design initiatives on the contract market is considered and monitored. In particular, the order of, and time between implementation, of the initiatives could play a role in reducing the impact on the contract market.

ASX acknowledges that the post 2025 market design consultation needs to address a broad range of issues to ensure that the national electricity market is fit for purpose. ASX believes that a well-functioning contract market will be an important part of the solution and would like to ensure that the impact on it is considered carefully.

ASX looks forward to discussing these ideas in more detail to help deliver on the objectives as set out in the post 2025 market design paper.

Kind Regards



Bradley Campbell

+61 2 92270492

Bradley.Campbell@asx.com.au

---

**Bradley Campbell**  
General Manager, Commodities  
+61 (0)2 92270492  
Bradley.Campbell@asx.com.au