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Department for Energy and Mining  
Level 4, 11 Waymouth Street, Adelaide  
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## **Re: Firm Energy Reliability Mechanism**

The Australian Energy Regulator (AER) welcomes the opportunity to make a submission on the Firm Energy Reliability Mechanism (FERM) proposed by South Australia's Department of Energy and Mining (the department).

### **Market dynamics**

South Australia has a unique generation profile and is at the forefront of the energy transition, with a significant proportion of its generation coming from renewables.<sup>1</sup> In 2023–24, 52% of generation came from wind and large-scale solar, with 25% generated by gas and 1% from batteries. For 2,477 hours in 2023–24, 100% of demand in South Australia was supplied by renewable generation. Wind has contributed to more generation than gas every year since 2020–21.

When renewable output is low, the market must rely on dispatchable generation such as gas generators and battery storage. Ownership of these assets is highly concentrated in South Australia, with AGL Energy and Neoen owning 91% of registered battery capacity, while AGL Energy and Origin Energy own 75% of gas capacity.

Over time, the economics of higher cost thermal generation has become less favourable. During low supply conditions, thermal generators are sometimes needed to provide firming capacity. They often require higher prices to recover costs. The increased prevalence of negative prices during lower supply conditions present challenges for these generators.

The occurrence of negative prices may fluctuate based on prevailing intermittent weather conditions and it may not be practical for some thermal plants to avoid dispatch into negative prices due to the plant ramping limit and/or minimum operating requirement. Some generators appear to have chosen to avoid this price risk by parking capacity at high prices. Others seem to have removed capacity from low prices in an attempt to avoid dispatch at times of low prices.

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<sup>1</sup> Information in this section taken from AER's Wholesale electricity market performance report 2024:  
<https://www.aer.gov.au/publications/reports/performance/wholesale-electricity-market-performance-report-2024>

This dynamic has resulted in a steepening of the offer curve for South Australia, where small changes in demand or supply could result in large price changes. This steep offer curve creates the opportunity and incentive to economically withhold, potentially lifting prices above an efficient level at times, particularly when other market conditions such as network constraints, plant outages and low renewable output coincide. Price volatility imposes costs on retailers, which must manage and or mitigate this volatility. The associated costs are typically passed onto consumers. In addition, it appears to be more difficult to hedge price risk, as evidenced by a shrinking market for currently available hedging products.

Standard contracts are increasingly less suitable for managing market risk and are consequently traded infrequently. The decrease in contract volumes and the contract size (that is, volume per trade) is likely because standard ASX contracts are less attractive for hedging in South Australia compared with other NEM regions, due to South Australia's unique demand and generation profiles. Contracts that cover a 24-hour period are increasingly less suited for the South Australian market.

South Australia's contract trade volumes have declined and the ratio of contract trades to electricity demand (liquidity ratio) remains low. While the liquidity ratio of other regions ranged from 7.2 to 10.9 in 2023–24, it was only 0.3 in South Australia. The divergence between the ratio trendlines for South Australia and all other regions illustrates that the South Australian contract market is being driven by different forces than those in the other regions.

Highly volatile prices may create too much uncertainty for investors to support new generation. A highly volatile wholesale spot market also creates financial risk for retailers and subjects them to the cost of managing this risk on behalf of customers. This is relevant to the proposed objectives and design of the FERM including to provide certainty in the resilience and reliability of the power system and to incentivise investment in long duration firm capacity at the lowest cost to consumers and within emission reduction targets.

### **Design considerations**

As outlined above, dispatchable generation in South Australia is concentrated. The benefits of the FERM will be achieved through supporting dispatchable generation, but the department should also consider how to ensure that market concentration does not worsen. We suggest the department consider whether diversification of ownership and control over trading rights could be encouraged through the design of the FERM.

Significant generation capacity is exiting the South Australian market in the near future. The risk around the mismatch of entry and exit remains. Given the lumpy nature of thermal generation exits, there could be more market volatility as the supply-demand balance tightens at certain times. Governments have developed policy mechanisms such as the Orderly Exit Management Framework to help manage reliability and security risks as plants exit.

We consider there is still a case for a policy response to manage price and competition impacts arising from risks of unplanned outages and fuel market prices and supply constraints. If the new generation does not enter in a timely fashion, it will provide opportunities for marginal and aging generators to exercise market power to push up prices. The department should consider this as part of the design of the element of FERM which makes existing generators eligible for support.

The level of support provided through the FERM may have an impact on the incentive for generators to contract. If the scheme provides too great a level of support, it may reduce incentives for the generator to contract hedges or take part in other risk management transactions. This may lower the availability of counterparties for retailers to hedge with,

making it more challenging for retailers to manage risk in the future. Where risk sits must continue to be considered in the design and implementation of government schemes to help maintain competition in both the wholesale market and retail markets. We encourage the department to consider this from a whole-of-market perspective, as well as an individual participant perspective, as part of the design of the FERM.

The AER also notes the new NEM review of wholesale market settings by an independent expert panel supported by the Australian Government Department of Climate Change, Energy, the Environment and Water.<sup>2</sup> This review could lead to new or different market mechanisms under the national framework. The department may wish to bear in mind the progress of this review while designing the FERM.

### **Maintaining reliability**

The Retailer Reliability Obligation (RRO) is similarly intended to support energy reliability at lowest cost to consumers. We encourage the department to consider how the FERM potentially overlaps with the RRO in terms of its objectives, in looking to address potential reliability concerns in the South Australian market in future periods. We also encourage the department to ensure that consumers are not unnecessarily required to pay twice through both the RRO and the FERM, for example by designing the FERM in such a way as to reduce the need to trigger the RRO. We would welcome the opportunity to engage further on this as the department progresses detailed design of the FERM.

We support the department's proposal to minimise the level of intervention in the market, and we emphasise the importance of existing market frameworks and signals to maintain system reliability. Where intervention occurs, it is important that this is governed by clear principles to minimise costs for consumers.

### **Cost recovery**

The FERM proposal is for cost recovery via a jurisdictional scheme applied at the transmission level. Figure 17 indicates that cost recovery should encompass direct connect customers (at the TNSP and DNSP levels) as well as residential households and small businesses (via retailers). We note that jurisdictional schemes are recovered at the DNSP level currently. Therefore, cost recovery through jurisdictional schemes at the TNSP level will need to be carefully developed with strong consultation as it will impose significant new obligations on TNSPs, interact with current DNSP arrangements and impact TNSP-connected customers for the first time.

### **Tender process**

The mechanism would introduce a tender process for "cap and collar" contracts, to be provided to new and existing generation of at least 8-hour duration. In general, a competitive tender process can be an appropriate regulatory tool to bring about efficient costs and so serve the financial interests of energy consumers. It is imperative that energy reforms are in the long-term interest of consumers, and minimise costs that will be passed on.

We agree it is important that an independent body has authority over the tender process, including design of evaluation criteria. We strongly support this aspect of the FERM proposal, i.e. that the independent Scheme Administrator conducts the tender, assesses bids, and determines which FERM contracts to issue. We also highlight the importance of appropriate governance for the Scheme Administrator, and note this could include an avenue for audit by an appropriate body.

We encourage the department to consider how the transparency of the operation of the scheme can be facilitated such as through regular public reporting on revenues and costs

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<sup>2</sup> <https://consult.dceew.gov.au/nem-review-initial-consultation>

(including administration costs). We acknowledge that publication of tender outcomes can be difficult as disclosure of bid details may have adverse impacts on the operation of future tender rounds. However, to the extent possible, we encourage this information being made public, potentially including the publication of aggregated outcomes or publication of details after a prescribed period of time (such that bid outcomes are no longer market sensitive).

### **Contract monitoring**

Contracts provided through the FERM may fall within the scope of the AER's Wholesale Market Monitoring and Reporting (WMMR) function. In May 2024, the South Australian Parliament passed the National Energy Laws Amendment (Wholesale Market Monitoring) Bill 2023 (SA), which amended the National Electricity Law (NEL) to bring the electricity contract market and wholesale gas markets into the scope of the AER's WMMR function. These amendments to the NEL provide a framework to enable the AER to monitor and report on effective competition and efficient operation of wholesale electricity and gas markets.

In November 2024, we finalised our Enhanced Wholesale Market Monitoring Guideline, which prioritised 4 key initial focus areas, including market liquidity. As part of the AER's commitment to efficient information collection, the Guideline stated that we will consider all feasible options before seeking information from participants, including obtaining relevant information from other agencies or bodies. We recently consulted on a draft Electricity Market Monitoring Information Order, which includes a requirement to report on contracts that are part of a list of current government schemes (such as the CIS) and the effect of these contracts on market behaviour. The AER may consider monitoring the FERM contracts in future and would be able to contribute transparency and insights as to the effect of the scheme through this mechanism.

### **Continued engagement**

We welcome further engagement with the Department as it progresses the FERM. If you have questions about this submission, please contact Stephen Watson [REDACTED].

Yours sincerely

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