Government of South Australia
Department of the Premier and Cabinet

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Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Reliability Frameworks Review – Interim Report (EPR0060)

Dear Mr Pierce

The Energy and Technical Regulation Division of the Department of the Premier and Cabinet, South Australia (Division) welcomes the opportunity to comment on the Interim Report for the *Reliability Frameworks Review* published by the Australian Energy Market Commission (AEMC or Commission).

South Australia is leading the transformation of the energy sector to a low carbon supply, with a rapid change in the generation mix present in the state. Unfortunately, the current market framework, and the lack of integration between Commonwealth climate change and energy policies, is not supporting the transition. This is leading to concerns that there may increasingly be occasions when the amount of generation available is insufficient to meet demand, such as occurred on 8 February 2017.

Accordingly, given the failings of the market framework, the South Australian Government has been forced to take action to maintain reliability in South Australia, including through the installation of temporary generators. It is, however, important that national policy settings evolve to support the reliable supply of power to consumers.

The Division is pleased to see that the Commission has considered the relevant issues in considerable depth, but is concerned that it appears to be drawing different conclusions to those advocated by the *Independent Review into the Future Security of the National Electricity Market* ('the Finkel Review'). The Finkel Review made fifty recommendations, including a strategic reserve, demand response and day-ahead markets, and the establishment of the Energy Security Board (ESB) to monitor their implementation. The COAG Energy Council agreed to all of the review's recommendations, with the exception of a clean energy target, which the Commonwealth Government was unable to support.

The remainder of this submission briefly comments on the Commission's analysis of the contract market, before focussing in more detail on the Commission's views regarding the three relevant Finkel Review recommendations.

The contract market

The Division is concerned by the Commission's preliminary views arising from its analysis of the market for derivative contracts settled against the South Australian regional reference price. Essentially the Commission appears comfortable with the current level of trading on the basis that ASX quarterly base futures for South Australia have always been thinly traded.[1]

It is not obvious to the Division that this should be a cause for comfort. The Division further suggests that it is vital that the Commission obtains evidence of levels of Over-the-Counter (OTC) trading before drawing any final conclusions. The Division understands on an anecdotal basis that there have been significant decreases in the levels of OTC trading in South Australia in recent years.

It is difficult to assess the Commission's views on reliability without also considering the likely impacts of the National Energy Guarantee (NEG) concept that has been proposed by the ESB. The Division suggests that, before making recommendations in its final report, the Commission should also take into account the likely effects of the NEG, particularly its impact on the contract market.

The ESB has claimed that the NEG "is likely to promote contract market liquidity" as, by requiring retailers to contract with generators to meet their emissions and reliability, the NEG "is likely to increase the demand for contracts".[2] This confuses two different concepts. Through its contracting mandate, the NEG may increase the level to which participants are contracted[3] but, at the same time, it could reduce liquidity.

High rates of liquidity are achieved when churn rates are high (i.e. the same good is traded multiple times) and are promoted when the traded commodity is fungible (or interchangeable). By valuing the emissions and reliability properties of each unit of energy differently, the NEG would reduce fungibility. The Commission should consider how this would affect its emerging conclusions.

Strategic reserves

The Division agrees with the Commission that there is merit in the market frameworks containing some form of safety net mechanism, and that this might be best achieved by making enhancements to the existing Reliability and Emergency Reserve Trader (RERT) arrangements.[4]

However, the Division does not agree that reserves should only be procured in the event that the market is expected to fail to meet the reliability standard. Instead, the current procurement trigger should be removed. That is to say that a strategic reserve should be viewed as an insurance product that it is appropriate to use to manage risk on a routine and ongoing basis.

Having certainty that reserves will be procured would allow a more strategic approach to be taken to procurement, potentially assisting in the introduction of the enhancements the Commission advocates to improve the mechanism's efficiency and

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[1] AEMC, *Reliability Frameworks Review*, Interim Report, 19 December 2017, p. 95.

[2] ESB, *The National Energy Guarantee*, Advice to the Commonwealth Government, 20 November 2017, p. 32.

[3] Although it may instead promote vertical integration.

[4] AEMC, *Reliability Frameworks Review*, Interim Report, 19 December 2017, p. 131.

lower its unit costs. Product standardisation is likely to be beneficial and there are likely to be other learnings from the current Australian Renewable Energy Agency (ARENA) – Australian Energy Market Operator (AEMO) trial.

To the extent that the Commission considers that removal of the current procurement trigger would distort investment signals,[5] the Division suggests that the Commission consider more rigorous ring-fencing between the strategic reserve and the wider market. Currently, AEMO may only enter into a reserve contract if the reserve provider would not otherwise offer the reserve to the market for the trading intervals to which the contract relates.[6] The Commission could consider extending this prohibition, for instance to the entirety of a financial year.

This is an area in which the Commission will again need to consider the potential impact of the NEG. It is not clear whether the capacity-mechanism type approach embodied in the NEG's reliability limb and a strategic reserve are complements or substitutes, although the Division is aware of at least one recent international example in which an explicit decision was made to implement a capacity mechanism instead of (i.e. as an alternative to) a strategic reserve.[7] Clarity on this issue – and agreement between the ESB and AEMC – will be vital. The Division looks forward to seeing more detailed analysis from the ESB on this matter in due course.

The Division further encourages the AEMC and AEMO to work together co-operatively to develop potential enhancements to the RERT design, noting that both bodies have to-date undertaken work independently and reached similar – but seemingly not identical – conclusions.

Day-ahead markets

With regards to a day-ahead market, the Division agrees with the Commission that it would be most appropriate to consider a US-style model, where the system operator is able to optimise dispatch over multiple dispatch intervals. Such a model could drive improved reliability outcomes by locking uncontracted market participants into financially binding schedules and by allowing the system operator to optimise the provision of reserves across the market.

A day-ahead market might also offer benefits by helping facilitate the development of markets for system security services, where the dispatch of the services is dependent on unit commitment decisions being made. The Division notes that the Commission has a separate system security work program, but encourages it to consider potential solutions on a holistic basis.

The Division also notes the Commission's concerns that it is difficult to assess elements of market designs from overseas jurisdictions, without a full appreciation of the wider frameworks and context.[8] In particular, the Division is interested in the Commission's view that introduction of a US-style day-ahead market would also require the introduction of complementary reforms, such as nodal pricing and firm transmission rights.[9]

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[5] Ibid, p. 149.

[6] National Electricity Rules, 3.20.3(j).

[7] Réseau de transport d'électricité, *French Capacity Market*, Report accompanying the draft rules, 9 April 2014, p. 6.

[8] AEMC, *Reliability Frameworks Review*, Interim Report, 19 December 2017, p. 182.

[9] Ibid.

As the Commission is aware, the Division has long held concerns that the existing NEM design does not adequately deal with the impacts of congestion on market participants, and may detrimentally affect their ability to enter into contracts with confidence. This is a particular issue when contracting on an inter-regional basis. As cross-border flows become increasingly important in underpinning reliability outcomes, the inability of market participants to use these physical flows to manage their financial risks will become even more problematic. The Division therefore looks forward to potential solutions being canvassed in the Commission's forthcoming Options Paper for its work on the Coordination of generation and transmission investment.

In terms of a day-ahead market, the Division suggests that a useful way forward would be for the Commission to develop a strawman model for the NEM. This would enable the Commission to assess its benefits and drawbacks without having to account for other differences in the broader market design. The Commission would also be able to understand to what extent, if any, the introduction of a day-ahead market would exacerbate the existing issues regarding the firmness of access.

Demand response

The Division agrees with the Commission's position that potential difficulties for third parties in providing demand response warrant further investigation, although it is not clear that this is completely consistent with the Commission also concluding that there are no regulatory barriers to wholesale demand response.[10]

Indeed, the Division was disappointed that the Commission did not examine in more detail the potential for a demand response mechanism that addressed the weaknesses of the model rejected by the Commission in 2016.[11] In particular, the Division considers that the Commission could have re-assessed whether the mechanism could have instead been implemented on a scheduled basis and whether there are alternative methods of revenue recovery, for instance by scaling metered generation and load in a similar manner as used to account for losses.

Nevertheless, the Division supports the Commission continuing to examine how opportunities for small consumers could be enhanced and how the role of third party aggregators supported, either by lowering barriers to them becoming retailers or though being able to provide a wholesale demand response product separate from energy provision.

The Division further notes that both a strategic reserve and a day-ahead market would be likely to help facilitate wholesale demand response. Indeed, as the Commission notes,[12] the use of demand response in a strategic reserve would promote economically efficient outcomes, as participation in the reserve would be voluntary and would reflect the value that a consumer was placing on reliability.

It would be preferable to interrupt those customers that had signalled their value of customer reliability through the strategic reserve before undertaking more widespread load-shedding. In this way, a strategic reserve could drive a response from those

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[10] Ibid, p. 101.

[11] AEMC, *Demand Response Mechanism and Ancillary Services Unbundling*, Final Rule Determination, 24 November 2016.

[12] AEMC, *Reliability Frameworks Review*, Interim Report, 19 December 2017, p. 145.

customers that would not have otherwise participated in the wholesale market, due to their value of customer reliability being in excess of the market price cap.

A day-ahead market could similarly help facilitate wholesale demand response, while avoiding some of the problems inherent with formalised demand response mechanisms. With a day-ahead market, consumers can schedule a given level of consumption on a day-ahead basis and then sell real-time energy reductions relative to that schedule. This has been described as a "buy your baseline" approach, which avoids the adverse selection and moral hazard problems associated with designs that pay consumers to reduce their consumption relative to an administratively set level.[13]

The Division looks forward to the Commission's further consideration of these important matters over the remainder of the review.

Should you wish to discuss the submission in further detail, please contact Mr Andrew Truswell, Director – Energy Transformation, Energy and Technical Regulation Division on (08) 8226 6554.

Yours sincerely

Vince Duffy
Executive Director
Energy and Technical Regulation
Department of the Premier and Cabinet

[13] Bushnell, J., Hobbs, B. F., & Wolak, F. A. (2009), *When it comes to demand response, is FERC its own worst enemy?*, The Electricity Journal, 22(8), 9-18.