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of South Australia

Department for
Energy and Mining

Our Ref: DEMC23/01791

Mr Charles Popple
Chair
Reliability Panel
c/- Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Popple

Thank you for the opportunity to make a submission on the review of the form of the reliability standard and administered price cap directions paper.

The Strategic Policy and Delivery Division (the Division) of the Department for Energy and Mining supports the findings arising from the Reliability Panel's (the Panel's) modelling of unserved energy (USE) resulting from a shift to a decentralised energy system. The Division considers that this transition has led to changes to the National Electricity Market's (NEM) reliability risk profile and, consequently, changes to the form of the reliability standard are required.

South Australia is at the forefront of the transition to variable renewable energy (VRE) and storage, including the integration and regulation of distributed energy resources (DER). In October 2023, South Australian wind and solar met 86.9 per cent share of local demand and in its 2023 Transmission Annual Planning report ElectraNet reinforced its projection that net renewable generation output would reach 100 per cent by 2026-27.

While not identified by the existing standard, risks to South Australia's reliability increasingly relate to periods of very low solar and wind availability, at times when demand is moderate or high. During these periods, reliability risks associated with outages of dispatchable generation units are heightened, particularly in the context of a reduced fleet of dispatchable capacity as this plant retires and becomes uneconomic.

Reflecting the importance of these matters to South Australia's outlook for reliability, the Division notes the relevance for South Australia of the modelling findings in the Paper including that:



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- unserved energy (USE) events may be longer and deeper than in the past, potentially requiring longer-duration firming capacity to mitigate.
- weather patterns will increasingly drive USE events, particularly when resulting in low wind and solar availability (dunkelflaute) and these events may be both more severe and linked to increasing VRE penetration.
- USE events may become increasingly dispersed across the day rather than coinciding only with the evening peak.

Additionally, while the modelling is not definitive that “tail risks” will increase as the NEM transitions, the Paper provides indicative evidence that this may be the case. Importantly, the Panel notes that this modelling is insufficient to draw conclusions for USE events in scenarios where VRE penetration is greater than 70 per cent. With VRE penetration in South Australia already greater than 70 per cent in 2022-23, the Division requests that the further analysis identified as necessary by the Panel include more robust scenarios that include high levels of VRE penetration.

The Panel’s findings reinforce the Divisions’ position that, particularly in its role as a market signal for investment decisions, the form of the reliability standard should better reflect how electricity is increasing being delivered and demanded. The Division considers that:

- the existing standard that requires USE to be averaged across the full range of possible outcomes for a given financial year fails to capture the likely increased dispersion of USE events that the modelling indicates may occur both within the year and within the day.
- the existing standard doesn’t adequately identify expected USE when the profile of generation output is shaped by predominately by VRE.
- the expected USE upon which forecasts are based is inadequate given the approach of averaging across the full range of possible outcomes for a given financial year.
- The methodology and data set that takes historical USE events as a prime input for the development of expected USE outcomes is becoming increasingly irrelevant for the purposes of forecasting reliability events in South Australia in the energy transition.

Additionally, the Division supports the Panel’s findings of its desktop review into the value of consumer reliability (VCR). In order to ensure that the reliability standard better addresses the changing nature of reliability over time, the Division encourages the Panel to work with the AER to ensure that the VCR reflects characteristics such as high levels of DER, “tail” events, and the longer and deeper events associated with higher VRE penetrations as described by the Panel’s modelled findings.

With respect to the APC, the Division supports adjusting the APC in line with an appropriate price index. The Division has previously indicated its support for such an approach in its



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submissions to both the AEMC's *Amending the administered price cap* rule change consultation paper and *Amendment of the Market Price Cap, Cumulative Price Threshold and Administered Price Cap* rule change proposal consultation paper.

While the Division acknowledges that a higher APC may lead to greater financial risks for generators and the risks of additional costs for consumers, this concern is outweighed by the potential risks to retailers (and subsequently consumers) of incurring unhedgeable generator compensation costs. The Division also notes that the extensive use of contracts by NEM retailers acts as a hedge against high spot prices in the short to medium term.

Thank you again for the opportunity to make a submission. The Division supports the progress made by the Panel on this review and endorses the timeline that would see a final form of the standard incorporated into the AEMC's 2026 Reliability Standard and Settings Review and implemented on 1 July 2028.

For further information on any of the matters raised in this submission in the first instance please contact Andrew Schultz, Principal Policy Officer on (08) 8429 4848.

Yours sincerely

A handwritten signature in black ink, appearing to read 'RM'.

Rebecca Knights
EXECUTIVE DIRECTOR, STRATEGIC POLICY AND DELIVERY

25 / 01 / 2024