25th September 2017

Australian Energy Market Operator
Level 22, 530 Collins Street
Melbourne VIC 3000

Submission by email at: sras2018@aemo.com.au

SRAS Guidelines - Draft Determination

Snowy Hydro Limited welcomes the opportunity to comment on the SRAS Guideline draft determination.

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts.

Start-up Reliability

Snowy appreciates the examples of individual aggregate reliability shown in Appendix C of the Draft Determination. Snowy Hydro still submits that start-up performance of the SRAS is the most critical element in the overall aggregate reliability and hence should be weighted more heavily than the other components of aggregate reliability.

One way to do this using the example shown by AEMO is to have the generator start-up reliability (Gen) weighting of 60% and the multiple of the DG, CB, Aux, CB, and Txr at 40%. Using example 1 in the Appendix C,the Individual SRAS Reliability (Source A and Transmission Type 1) is:

= 96% * 60% + (95% * 99% * 98% * 97% * 98% * 98%) * 40%
= 0.576 + 0.343
= 91.9%

As expected the weighting placed to the "Gen" start-up reliability has increased the overall Individual SRAS Reliability to 91.9% compared to the 82.4% calculation in AEMO's unweighted example.

Determination of Electrical Sub-Networks

Snowy Hydro does not believe AEMO has critically assessed whether it is more appropriate for NSW to have two electrical sub-networks. We highlight this concern with the amendment of the NSW Region into only one region. Firstly, fewer electrical sub-networks may dilute AEMO's responsibility to meet 1500MW of supply to be restored in 2 hours.

For instance the NSW-South has 6,900 MW of generation and 11,060 MW of load and the NSW-North has 10,875 MW of generation and 3,690 MW of load. Using these approximations the combined NSW Region would have 17,775 MW of generation and 14,750 MW of load.

With the NSW Region as one big region where AEMO chooses to energise supply would create an equity issue across customers in different regions in NSW.

As an illustrative example, AEMO could meet its obligation under the System Restart Standard to energise the auxiliaries of sufficient generators by only energising the auxiliaries of generation located in the NSW-South region. This would mean that load located in the NSW-North region would take longer to be restored than compared to load situated in the NSW-South region.

Under the previous two sub-electrical networks AEMO would have been obligated to supply the auxiliaries of 1,476 MW of generation in NSW-North and 4,424 MW of generation in NSW-South (to meet 40% of peak load). The previous two sub-electrical networks provided a more equitable outcome for customers across the whole of NSW.

We also note the requirement for AEMO to procure SRAS in NSW should include sufficient SRAS to independently restart, without drawing power from the power system, at least 500 MW of generation capacity north of Sydney within four hours of a major supply disruption with an aggregate reliability of at least 75%. This was acknowledgement from the Reliability Panel that additional SRAS was required in the NSW-North region.

It would be more consistent to apply the System Restart Standard to a separate NSW electrical sub-network for NSW-North that specifies the target megawatt (MW) supply restoration capability, timeframes and aggregate SRAS reliability requirements for this electrical sub-network rather than a requirement that deviates from that used by all other NEM electrical sub-networks.

Snowy Hydro appreciates the opportunity to participate in this consultation process. For further clarification on our submission, contact me on kevin.ly@snowyhydro.com.au.

Yours sincerely

Kevin Ly
Head of Wholesale Regulation