

18th February 2015

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submission lodged online at: www.aemc.gov.au

Project Number: ERC0168

Dear Mr Pierce

System Restart Ancillary Services Rule 2014 – Draft Rule Determination

Snowy Hydro Limited welcomes the opportunity to make a submission to the Draft Determination. On balance we believe the AEMC has done a good job reconciling two separate Rule changes.

Snowy Hydro endorses the AEMC's recommendations to:

- Improve governance arrangements by:
 - Providing clear functional separation of roles between the Reliability Panel and AEMO;
 - Requiring the Reliability Panel to develop the System Restart System (SRS) to meet the System Restart Ancillary Services (SRAS) objective. We strongly support the recommendation to procure SRAS to mitigate the scenario of a NEM-wide major supply disruption with restoration timeframes for the independent restoration of each electrical sub-network; and
 - Improved transparency and accountability regarding AEMO processes by requiring AEMO to report annually on whether the SRS was met for each electrical sub-network, the processes followed to procure SRAS, and the processes used for testing and assessing SRAS capability.
- Not to introduce price arbitration for SRAS procurement. We agree with the AEMC's assessment that price arbitration would introduce significant cost and risks, dampen pricing signals for investment and risks the withdrawal of SRAS Providers from participating in the tender process.

Snowy Hydro disagrees with the AEMC on a number of issues:

- Amending the SRAS Objective with inclusion of the words “**to the extent appropriate**”. We believe the ROAM Consulting¹ work undertaken for the NGF can be used as the basis of an objective methodology for the Reliability Panel to assess

¹ Roam Consulting, Report to the NGF & PGG - Review of System Restart Ancillary Services (SRAS) Requirements in the NEM, 7 May 2014

whether sufficient SRAS has been procured to meet the SRAS Objective and the SRS. We therefore believe the inclusion of the words “to the extent appropriate” is not required in the SRAS Objective.

- Insertion of to meet the SRS “**at lowest cost**” into AEMO’s key function of procurement of sufficient SRAS to meet the SRS (the SRAS Procurement Objective). We believe this insertion serves no purpose as the SRS has to meet the SRAS Objective and the SRAS Objective is already couched to minimise short and long term economic cost. This insertion could be misconstrued to focus on the short term costs without adequate consideration of long term costs. If the AEMC sees benefit in including additional words we advocate using SRS at the most “efficient cost”.
- Allowing AEMO to establish and change electrical sub-network boundaries without explicit endorsement from the Reliability Panel. Electrical sub-network boundaries play a key role in whether sufficient SRAS has been procured to meet the SRS and SRAS. We believe it’s therefore unwarranted to:
 - Change the boundaries of the electrical sub-networks without first undertaking extensive modelling to ensure that AEMO is able to meet its obligation to the SRS; and
 - To allow AEMO to change boundaries of the electrical sub-networks without third party independent approval of these changes. Notwithstanding the fact AEMO has to consult on any changes to electrical sub-networks we believe independent sign-off by the Reliability Panel will strength confidence in the integrity of any changes to this key aspect of the SRAS regulatory frameworks.

We highlight this concern with the recent amendment of the NSW Region into only one region.

Firstly, fewer sub-electrical networks may dilute AEMO’s responsibility to meet 40% of the peak demand load in 4 hours. This may create an equity issue across customers in different regions in NSW. 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. Forty per cent (40%) of the load for the NSW region is 5,900 MW.

As an illustrative example AEMO could meet its obligation under the SRS to energise the auxiliaries of sufficient generators to meet 40% of the load in 4 hours by only energising the auxiliaries of 5,900 MW 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 current two sub-electrical networks AEMO would be obligated to supply the auxiliaries of 1,476 MW of generation in NSW-North and 4,424 MW of generation in NSW-South. Therefore the current 2 sub-electrical networks provide a more equitable outcome for customers in NSW.

Secondly, this major change to the NSW Region was proposed and enacted by AEMO without first undertaking sufficient technical modelling.

Snowy Hydro is cautious with the following AEMC recommendations to:

- Enhance AEMO's flexibility in SRAS procurement. The tendering arrangement has been in place since market start. There is an acceptable level of transparency and robustness to the tendering arrangement which instils confidence to incumbent and prospective new entrants entering into the tenders. We are cautious that this rigor in the process may be eroded by providing AEMO with other means to procure services which are not as transparent. Hence in principle we support this recommendation contingent on:
 - a "like for like" comparison of the quality of SRAS procured from other methods other than tendering (i.e. directly negotiated contracts for SRAS) is comparable to services procured through the current tender process; and
 - sufficient transparency if provided by AEMO to substantiate that the SRS is being met.
- In principle we find it regressive not to publish information for each electrical sub-network. In our opinion this information will aid inform investment decisions. We also consider that the SRAS market is workably competitive and there is always pricing discipline on all Service Providers with the threat of new entrants.

Transitional arrangements

If the draft rule is ratified in the final rule determination there will be a number of material issues which will impact on AEMO's current tender process. For instance, the restoration timeframes for the independent restoration of each electrical sub-network could result in AEMO procuring an inefficient amount of SRAS.

AEMO's position on the independent restoration of electrical sub-networks has varied through-out its latest review of SRAS. This has created uncertainty for incumbent and prospective tenderers in the 2015 AEMO tender process.

The NGF has advocated that the 14/15 tender process ceases and that existing contracts which expire on 30 June 2015 are extended by mutual agreement between Service Providers and AEMO. This is consistent with the AEMC's insertion of the Rule clause 11.77.6 in the Draft Rules:

11.77.6 Existing SRAS Contract

AEMO may continue to acquire system restart ancillary services under an existing SRAS contract and may extend the period of an existing SRAS contract for such period as AEMO and that person reasonably determine.

Enacting Draft Rule clause 11.77.6 would allow sufficient time for the Reliability Panel and AEMO to consult on key aspects of the AEMC's Final Rule Determination and issue a new tender process under this framework once the consultations have concluded.

If this is not possible then Snowy Hydro recommends the AEMC's transitional arrangements include a Rules requirement for AEMO to assess whether it has procured an appropriate amount of SRAS at the conclusion of the Reliability Panel consultation on the SRS and if there is a deficiency in SRAS procured AEMO must commence a process to fill in any gaps.

The SRAS Objective and Cost/Benefit Analysis

Section 5.1.1 of the Draft Determination discusses the SRAS Objective and whether the amount of SRAS procured from AEMO can be assessed to be at an efficient level to ascertain whether the SRAS objective has been met.

While we recognise deriving a practical approach to a cost/benefit analysis which would allow an assessment on whether the quantum of SRAS procured meets the SRAS Objective is a difficult task, Snowy Hydro considers that Roam Consulting² approach should form the basis of an objective, transparent, and robust methodology for cost/benefit assessment.

ROAM surveyed the available literature on the probability of large blackouts in power systems around the world which had comparable characteristics to the NEM. From this literature review ROAM estimated the probability of blackouts of varying magnitudes for the NEM. One way to represent the probability of particular event is the “return period”, which refers to the number of years between events, on average. The estimated return period for the NEM for various blackout magnitudes (i.e. demand in MWs affected) is noted in the table 1 below.

Estimated return period of NEM blackouts, compared with actual data

Blackout Size	Estimated Return Period (Years)	Observed Return Period (Years)
≥ 500 MW	1.6	1.25
≥ 1,000 MW	2.7	2.5
≥ 1,800 MW	4.5	5
≥ 5,000 MW	12.1	N/A
≥ 10,000 MW	24.6	N/A
≥ 15,000 MW	37.3	N/A
≥ 20,000 MW	50.3	N/A
≥ 25,000 MW	63.4	N/A

Table 1 - Estimated NEM blackout return periods

From Table 1 coupled with the Value of Customer reliability values both the Reliability Panel and AEMO could use this data to ascertain for each electrical sub-network whether sufficient SRAS have been procured to meet the SRAS objective.

The Roam Consulting methodology has provided a sound fundamental method for cost/benefit analysis of SRAS. We would encourage the Reliability Panel to expand on this work and customise the statistics and methodology to the NEM as part of their re-assessment of the System Restart Standard and their accountability to the SRAS Objective.

² Roam Consulting, Report to the NGF & PGG - Review of System Restart Ancillary Services (SRAS) Requirements in the NEM, 7 May 2014

In conclusion Snowy Hydro believes the AEMC has done a sound and robust assessment of two related Rule change proposals. We have outlined our support for a number of changes in the preferred Draft Rule namely improving the governance arrangements, and rejecting price arbitration for SRAS procurement. Snowy Hydro disagrees with the watering down of the SRAS Objective and suggests that there is an objective, credible, and quantifiable method to determine whether an efficient level of SRAS has been acquired for each electrical sub-network through the methodology used by Roam Consulting.

Finally, we consider that extension of current contracts is a sensible way to allow AEMO and the Reliability Panel to consult on various aspects of the Rule Determination. Re-issuing new tenders at the conclusion on these consultations would be good regulatory practice and provide Service Providers with much needed certainty as to exactly under what regulatory frameworks they are offering their service. We suggest that Draft Rule clause 11.77.6 "Existing SRAS Contract" is enacted prior to the 30 June 2015 to allow AEMO the means to continue to acquire system restart ancillary services under an existing SRAS contract.

Snowy Hydro appreciates the opportunity to respond to this Draft Rule Determination. I can be contacted on (02) 9278 1862 if you would like to discuss any issue associated with this submission.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'K Ly', with a stylized flourish underneath.

Kevin Ly
Manager, Market Development & Strategy