

5 October 2016

The Chair
AEMC Reliability Panel
PO Box A2449
Sydney South NSW 1235

Lodged online

Dear Mr Henderson

MEU Comments on Draft Rule referencing SRS

AEMC reference: REL0057

The MEU welcomes the opportunity to provide its views on the AEMC Reliability Panel (RP) draft rule from its review of the System Restart Standard (SRS). The MEU has been involved with the AEMO and the AEMC processes regarding the development of the SRS and examining the cost of the System Restart Ancillary Service (SRAS); a continuing concern of the MEU has been the high costs involved in providing the service, particularly in more recent times.

The MEU provided a response to the AEMC draft rule on the SRS (and accompanying SRAS) and commented that the likelihood of a subnetwork going “black” was remote and therefore the costs for supplying SRAS have to be balanced against the value to consumers of the loss of supply for the cost of the insurance that the SRAS provides. The MEU welcomes that this RP draft decision does assess the value to consumers of electricity supply in the development of the SRS as well as assessing that each sub-network is different, implying that different standards should be assessed for each sub-network.

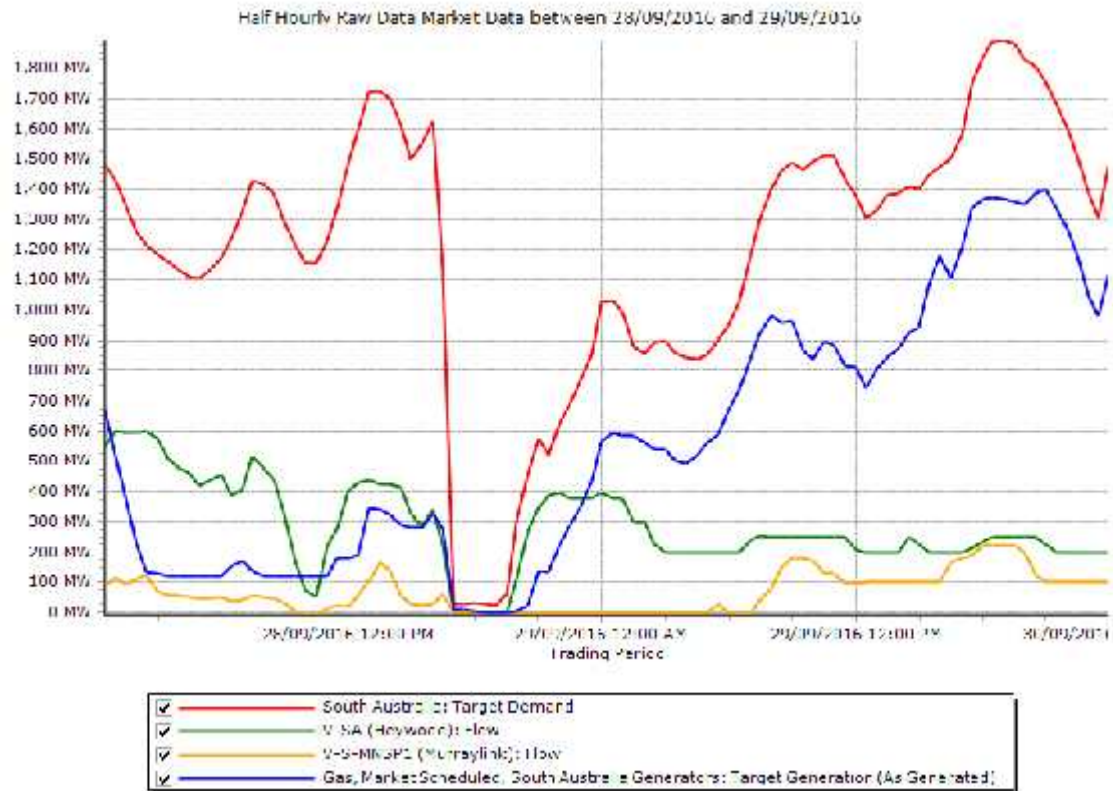
The MEU notes that many of the concerns it raised in its earlier responses on this issue have been addressed in the draft decision. However, the MEU notes that although the RP considers that excluding the use of interconnectors to be a source of system restart services is a conservative view, the MEU considers that this view is excessively conservative.

For example, in the recent islanding of SA region and it going “black” on 28 September, it was the delivery of supply from Victoria via the Heywood interconnector that provided the fastest return of supply to the SA region and in fact it was the primary

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source of energy to restart the generators in the SA region. The following chart shows this quite clearly.



Source: NEM Review using AEMO data

The MEU notes that although the Heywood interconnector isolated Victoria from SA so there was not a cascade of further failure into the Victoria region, it is clear that it was the reconnection of the Heywood interconnector that provided resupply to the SA region within about an hour of the incident¹ and the supply from the regional generators followed on some hours later as power was restored to power station auxiliaries. The MEU also notes from the AEMO preliminary report that the two regional providers of SRAS for the restart process either had insufficient power to restart the larger generators or failed to be able to provide the service as a result of storm damage to its equipment².

This real world example highlights that perhaps the draft decision is perhaps over conservative. The draft decision comments (page iii)

¹ This is confirmed in the AEMO preliminary report on the SA incident released 5 October 2016 available at <http://www.aemo.com.au/Media-Centre/-/media/BE174B1732CB4B3ABB74BD507664B270.ashx>

² This means that effectively payments had been made for SRAS over the years for a service that was not provided when needed.

“The Draft Standard has also been determined on the assumption that when restoring supply to the generation and transmission system in a sub-network, supply from a neighbouring sub-network cannot be relied on by AEMO when procuring sufficient SRAS. This assumption is enshrined in the Rules. The Panel recognises that this assumption is conservative, as generally it is likely that supply from neighbouring sub-network would be available. However, by basing the Draft Standard on such an assumption, the procured SRAS is evenly distributed throughout the NEM and will also provide greater assurance against the very unlikely occurrence of a major supply disruption affecting the whole NEM.”

The MEU accepts that in setting the Standard it is appropriate that the most credible source of supply of SRAS should be excluded as this would provide a conservative estimate of what is a reasonable recovery time to expect after an incident. However, the MEU is concerned that the requirements imposed on AEMO for sourcing SRAS will also exclude supply from an interconnector and thereby increase the costs for provision of the SRAS.

The draft decision recognises that it is the aggregate reliability of restoration that is a key aspect of what is required (as distinct to the reliability of each of the individual SRAS sources) for restoration of supply. This aspect is becoming more important with the increasing amounts of asynchronous generation that are entering the NEM regions under the incentives of the RET and other state based incentives for renewable generation.

While the MEU agrees that there is no certainty that an interconnector will be available for system restart, an interconnector is just as likely (if not more so) to be available as any single generator within the region. A decision to exclude the interconnector as a credible source of SRAS belies the reality that the only other credible sources allowed to be used in the provision of SRAS are generators which appear to have less reliability than the interconnector.

On this basis, the MEU considers that use of an interconnector should be considered to be one of the credible suppliers of SRAS and that AEMO should be required to recognise this as part of its contracting of supplies of SRAS.

As noted above, the MEU is very concerned that the SRAS has to be procured on a regional standalone basis. The MEU is very much aware that there have been decisions made to increase the amounts of asynchronous generation in each region as a result of the move to increase the supply of renewable energy – such asynchronous generation includes rooftop solar, wind farms, DC interconnectors and batteries. The outcome of increasing these forms of generation has resulted in the significant loss of synchronous generation which is essential for a restart. As parts of the NEM are better suited to provision of different types of generation, it is possible that some regions will have greater amounts of asynchronous generation than others, resulting in lesser amounts of

synchronous generation within that region. The less the amount of synchronous generation, the less competition for its supply and the higher the costs will be to provide SRAS. The MEU notes that the RP has noted that this might be an issue as it states (page 82)

“The Panel will monitor the progress of the various projects above and the potential implications for the System Restart Standard.”

The MEU is very concerned that the RP is implying the matter will be deferred (and excluded from this review) as the MEU considers that this aspect is of major importance considering the AEMO preliminary report on the SA incident indicates that there was a loss of some 330 MW of wind generation at the time of the SA incident and that this might have led to the overloading of the Heywood interconnector, with its consequent closure causing the entire SA region to go “black”. Whether the loss of the wind generation was because of a failure of the network or because that generation was asynchronous is yet unknown but the impact had far reaching effects.

The MEU considers that the SRS and SRAS review needs to incorporate the learnings from the SA incident as a part of its assessment as the SA region reflects the changing of the generation mix. As the likelihood of this trend in generation mix trend will continue, the changes highlight the increasing role of interconnectors in supply reliability provision (and hence the supply of SRAS) and the falling competition amongst regional generators to provide this reliability.

The MEU would be pleased to expand on its response and if this would assist, please contact the undersigned on 03 5962 3225 or at davidheadberry@bigpond.com

Yours sincerely



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Major Energy Users Inc