

Mr Sebastien Henry  
Australian Energy Market Commission  
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Lodged online

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Dear Mr Henry,

**RE: EPR0053 - System Security Market Frameworks Review - Directions Paper**

SACOSS is the peak body for the non-government community services and health sectors in South Australia, with a long– standing interest in the efficient delivery of essential services. We thank the AEMC for their Directions Paper on the critical electricity market developments related to the System Security Market Frameworks Review.

SACOSS appreciates the significant work already conducted by the AEMC, the Technical Working Group of which we have been a member, the Interim Report and opportunity to meet with the Review team this week: we greatly value this type of engagement and are very appreciative of the AEMC openness and willingness to engage. SACOSS has been investing considerable time, effort and resources in this area of the market, commissioning consultant assessments on SA inertia since November 2015, to ensure we are across many of the issues raised in this Directions Paper. We encourage continued involvement from the consumer-side of the industry.

Whilst we accept that the widespread deployment of new, non-synchronous generating technologies, such as wind farms and solar panels, is having an impact on the power system, there are several other areas we wish to see explored in parallel with the matters raised in the Directions Paper. It is our contention that the Directions Paper has very quickly focussed in on TNSP's providing many of the required solutions, a position we are not convinced will be the most cost effective in the short or long term.

We thank you in advance for consideration of our comments. If you have any questions relating to the following material, please contact Jo De Silva on [jo@sacoss.org.au](mailto:jo@sacoss.org.au) or 08 8305 4211.

Yours sincerely,

Ross Womersley  
Chief Executive Officer

## SACOSS Comments

### 1. Jumping to TNSP solution provision

SACOSS recognises the identified frequency management options the AEMC has developed, but has some concern with the way these options have been distilled into the 'two staged packages' for further stakeholder feedback. These conclusions, whilst appearing sound and reasonable, concentrate too heavily on TNSP/DNSP provision of the solutions, which at this stage are still technically nebulous and therefore, would appear a poor fit for the current TNSP expenditure models.

Given frequency response is currently the domain of the generation fleet (albeit requiring far more significant tuning and model development as per recent ESCOSA submissions<sup>1</sup>), and FFR by its nature is a form of frequency control, it appears inefficient from the outside to be now suggesting TNSP develop and implement solutions in an area they currently mainly observe. The recent high FCAS price events in SA over the last 18 months (see Figure 1), which should be starting to incentivise FCAS provision in the market which would lower the prices faced by consumers, would be far less effective if the TNSP's were now providing the service. SACOSS acknowledges that cross-utilisation between some network equipment, voltage management and inertia services may occur, but would like to see greater identification of these requirements, in much the same way as NSCAS services are identified before solutions are implemented. As noted in the report, AEMO's NTNDP in December 2016 has only just started to consider NSCAS assessments for some of the system strength issues that were identified in SA.

SACOSS acknowledge and recognise TNSP's will be involved (as should the generation and demand-response communities where possible): all will need to be involved to achieve the most efficient and cost-effective solution for the consumer.

### 2. Non-Synchronous Generation FFR Capability Requirement

The inclusion in the immediate package of requiring only non-synchronous generation to provide FFR capability seems inefficient: it should be all generation or none. Inertia will remain an issue whether there is high or low wind or solar plant in service given the likely displacement of the high inertia, synchronous generation. Without claiming to be proficient in power systems engineering, SACOSS would contend this generator obligation should be extended to all new entrant generation, irrespective of their fuel or dispatch nature. Similarly, mandating a FFR service for the generation fleet but without a means to recover costs, whilst at the same time leaving the development to the TNSP's (who will undoubtedly spend significant capital acquiring and developing inertia/FFR capability for the immediate term, but potentially paid for by customers for the long term), again seems contrary to good electricity practise. If a market signal is desired in the long term (and SACOSS agree this is generally more desirable than not), then use of short duration, audited contracts for the short-term (say 1-4 year in tenure) for the provision of the required inertia or FFR services while the technical envelopes for the market are developed, would seem far more efficient than the current direction.

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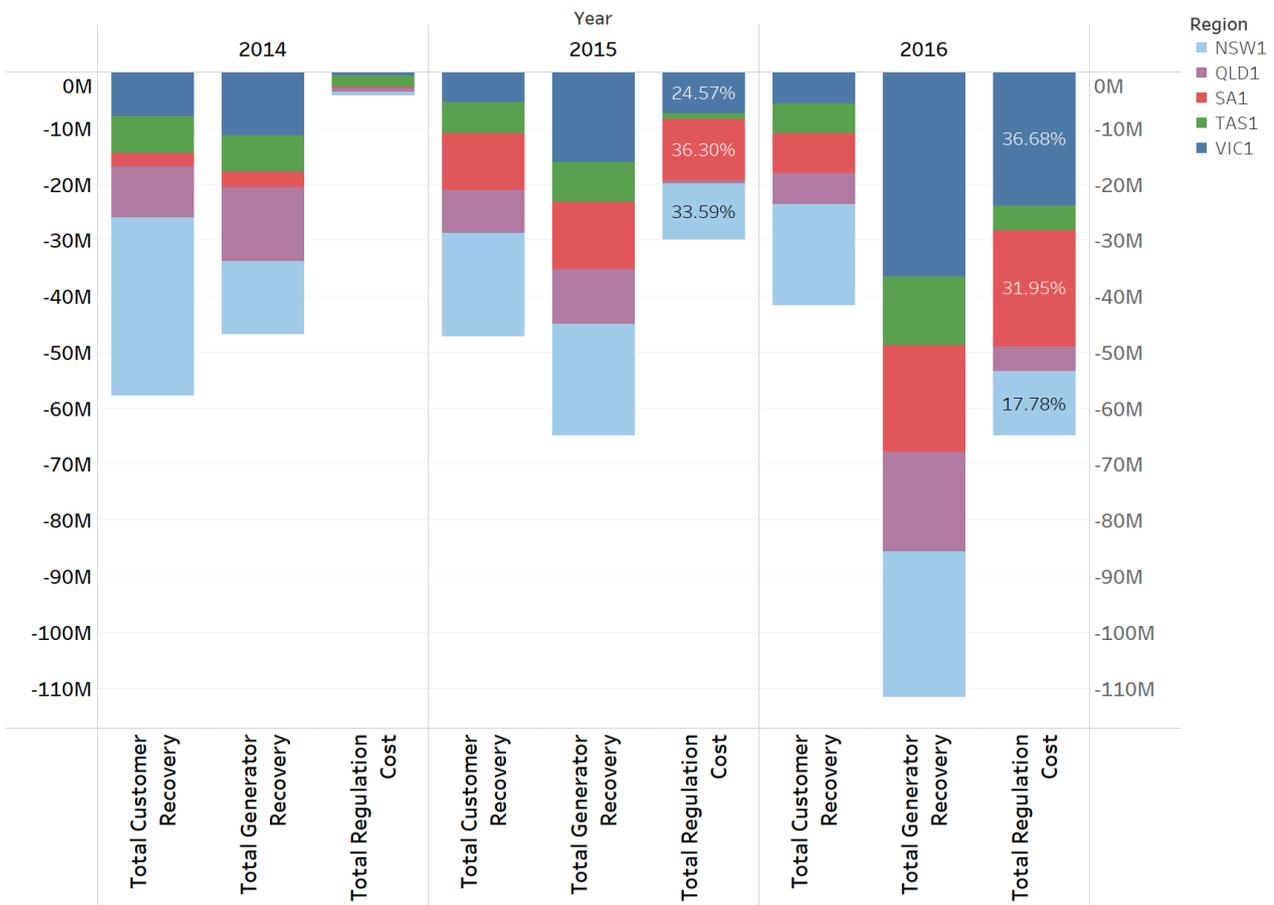
<sup>1</sup> <http://www.escosa.sa.gov.au/ArticleDocuments/1047/20170208-Inquiry-LicensingInverterConnectedGeneratorsIssuesPaperSubmission-KSummers.pdf.aspx?Embed=Y>

### 3. Technical Considerations of FFR

Much of the discussion by AEMO and the AEMC on FFR has been based around the excellent report completed by GE Consulting. SACOSS draws the AEMC’s attention to the inclusion and assessment of the risks associated with implementation of an FFR scheme given the current state of the technology developments (Section 4 of the GE report, p 107 onward). The risks identified in the GE Consulting report should continue to form part of the cost benefit analysis for the implementation of FFR or synthetic inertia mechanisms, especially given the current confusion associated with the levels of primary frequency control the power system has enabled (see footnote 1).

### 4. Other Comments

SACOSS disagrees that works resulting from generator exit should be undertaken by the NSP as a prescribed service (i.e. funded by consumers): entry and exit should be managed by the generation sector-as-a-whole.



**Figure 1: Total Regulation FCAS by Region**

Figure 1 illustrates the total generator and customer recovery for all FCAS services across 2014-2016 using publicly available AEMO data. The total regulation FCAS component makes up a disproportionate amount, based on AEMO’s use of the 35MW local requirement in SA and subsequent market outcomes.