18 August 2022

Australian Energy Market Operator
**Submitted via email:** rasguidelines@aemo.com.au

Dear Sir/Madam

**Submission: Remedial Action Scheme Guidelines**

CS Energy welcomes the opportunity to provide a submission to the Australian Energy Market Operator's (**AEMO's**) consultation on the Remedial Action Scheme Guidelines (**the Guidelines**)

## About CS Energy

CS Energy is a Queensland energy company that generates and sells electricity in the National Electricity Market (**NEM**). CS Energy owns and operates the Kogan Creek and Callide B coal-fired power stations and has a 50% share in the Callide C station (which it also operates). CS Energy sells electricity into the NEM from these power stations, as well as electricity generated by other power stations that CS Energy holds the trading rights to.

CS Energy also operates a retail business, offering retail contracts to large commercial and industrial users in Queensland, and is part of the South-East Queensland retail market through our joint venture with Alinta Energy.

CS Energy is 100 percent owned by the Queensland government.

## Key views and feedback

The NEM is changing and will continue to do so as it transitions to a market with more Variable Renewable Energy (**VRE**) and an overall lower carbon footprint. This transition will bring changes in how power system security is managed, and CS Energy thus supports the development of the Guidelines in accordance with good electricity industry practice.

It is noted that there are currently many Remedial Action Schemes (**RAS**) in the NEM and this is expected to increase into the future with a key benefit being increased utilisation of the power system while at the same time managing power system security.

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The key recommendations in Table 1 on page 8 of the *Power System Incident Report* for the Queensland and South Australia system separation on 25 August 2018[1] (**Report**) highlights the criticality of the Guidelines. Recommendations 6 and 7 of the Report are of particular relevance to the Guidelines:

> Recommendation 6
> Protection and control schemes a) AEMO to immediately commence a review of the EAPT scheme to identify improvements by 1 July 2019. b) AEMO to also review other existing AC interconnector schemes with Transmission Network Service Providers (TNSPs), to determine whether their performance remains fit for purpose in the changing environment and are properly co-ordinated, by Q1 2020.
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> Recommendation 7
> Emergency frequency control schemes AEMO to continue implementation and investigate any further functional requirements of Emergency Frequency Control Schemes (EFCS) for each region, commencing with SA and QLD prior Q1 2020

AEMO conducted several sessions following the power system incident on 25 August 2018. Based on the discussions at the sessions it appeared that a strict regular test regime of RAS or equivalent was not in place at the time nor was a regular review conducted of the existing RAS or equivalent to assess if they were still 'fit for purpose'.

The challenge of coordination between adjoining region TNSPs regarding interconnector protection was also highlighted as an area for attention. It is important the coordination function is codified in procedures and associated processes to avoid unexpected operation or outcomes.

The content of the Guidelines[2] addresses the industry concerns identified in the learnings from the power system incident on 25 August 2018.

CS Energy would also encourage AEMO to consider including a summary report on the key RAS metrics detailed in the Guidelines in the annual General Power System Risk Review (**GPSRR**). It is noted that the inaugural GPSRR will be published in 2023.

The Guidelines are assessed as providing adequate discrimination of requirements for different types/levels of RAS.

In the absence of an alternative, it appears that application of the consequences categories (Table 3) to real RAS reflects appropriate risk management. Furthermore, the RAS

[1] https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-events-and-reports/power-system-operating-incident-reports
[2] https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/publication-of-draft-remedial-action-scheme-guidelines/draft-remedial-action-scheme-guidelines.pdf?la=en

consequence categorisations in Table 3 appear to align with the design principles in Table 4 and testing guidelines in Table 5.

As the RAS is fundamental to the delivery of power system security, it would be expected that duplication/redundancy would be a key feature and requirement of the schemes.

The modelling requirements for RAS should be included in the Guidelines with a reference to the Power System Model Guidelines for the actual details and requirements.

The RAS assessment criteria in Appendix A appear to be adequate and comprehensive with accompanying clarity that the process is an input to the overall assessment of a RAS.

If you would like to discuss this submission, please contact Henry Gorniak on 0418 380 432 or hgorniak@csenergy.com.au.

Yours sincerely

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