



**EnergyAustralia**

LIGHT THE WAY

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Dear Commissioners,

## **NATIONAL ELECTRICITY AMENDMENT (EFFICIENT MANAGEMENT OF SYSTEM STRENGTH ON THE POWER SYSTEM) RULE 2021 (ERC0300)**

EnergyAustralia (EA) welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC's) Draft Determination on System Strength Frameworks in the National Electricity Market (NEM).

EA is one of Australia's largest energy companies with around 2.4 million electricity and gas accounts in NSW, Victoria, Queensland, South Australia, and the Australian Capital Territory. EA owns, contracts and operates an energy generation portfolio that includes coal, gas, battery storage, demand response, solar and wind assets. Combined, these assets comprise 4,500MW of generation capacity.

EA is dedicated to building an energy system that lowers emissions and delivers secure, reliable and affordable energy to all households and businesses, which requires being a good neighbour in the communities we operate in. As part of this, we recognise Aboriginal and Torres Strait Islander peoples as the traditional custodians of this country and acknowledge their continued connection to culture, land, waters and community.

### **Overview**

EA is appreciative of the AEMC's efforts to examine the regulatory, conceptual and physical foundations of system strength in the NEM. In particular, EA commends the AEMC on its System Strength Technical Working Group (TWG) initiative. As an active TWG participant, EA was impressed with the professional and productive manner in which they were run. The AEMC displayed a real willingness to listen, collaborate and develop recommendations in line with expert stakeholder feedback. We consider this was instrumental in the principled yet pragmatic Draft Determination which EA largely supports. Given this outcome, EA would strongly support the same approach being used for other important future developments such as consideration of inertia markets. The following provides further detail on EA's assessment of the Draft Determination.

### **Supply Side**

EA has previously highlighted that flexibility in meeting the System Strength Standard (SSS) will be critical for ensuring efficient and timely system strength outcomes. EA,

therefore, supports the two-part planning focus on minimum fault levels and stable voltage waveforms, along with dropping the proposal to make Available Fault Level (AFL) a mandatory planning metric. This will allow consideration of system strength issues and solutions that do not result solely from a lack of fault current, and which may have otherwise favoured a pure network remediation approach. That is, in contrast with the AEMC's desired 'portfolio approach' to system strength issue mitigation which 'expects and encourages' contracting with generators, Inverter Based Resource (IBR) retuning and other solutions identified through joint planning processes with Transmission and Distribution Network Service Providers (TNSPs, DNSPs).

In this respect, EA also supports the directive that TNSPs must procure the entire amount of system strength to meet the standard. That is, with the coincidental system strength provided by synchronous generation dispatched in the energy market excluded from procurement considerations unless a contractual arrangement is struck to cover this output. EA considers this will result in more efficient procurement outcomes by providing a more accurate and transparent indicator of the true value of system strength services in various grid locations.

In terms of compliance with the SSS, the AEMC has stated that much of the existing economic regulatory framework will apply given the provision of system strength will now be a prescribed transmission service. Further, that any new penalties and enforcement measures required will be consulted on by the AER post the Final Determination. EA understands this approach but considers that more clarity on these specific areas in the Final Determination may be useful to guide AER consultation. For example, it is unclear whether system strength remediation will qualify as part of the Efficiency Benefits Sharing or Capital Expenditure Sharing Schemes (EBSS, CESS), or whether some other incentive and enforcement regime, along the lines of the Service Target Performance Incentive Scheme (STPIS), is preferred.

## **Demand Side**

EA supports the introduction of the two new minimum access standards for Short Circuit Ratio and Voltage Phase Shift. We consider the standards strike an appropriate balance between incentivising reductions in system strength consumption without placing an unrealistic technological and financial burden on prospective IBR connections.

EA also supports the new standards not being applied to any pre-existing plant, including in situations where performance standards are reopened for other reasons. As noted in TWG discussions, retrospective application of a standard to equipment installed under different rules would have had significant commercial and market ramifications.

Although explored as part of earlier TWG discussions, there is no demand-side damping standard in the draft determination. EA supports this noting that there are numerous issues to work through to define such a standard and with the incremental benefits unclear at this time. With that said, EA considers there may be merit in further exploring this and other aspects of the final framework as part of a broader, post-implementation review to occur three years after rule implementation. Establishing the timeline for such a review in the Final Determination would provide clarity to participants on potential future developments, help to ensure the new framework is delivering on its intent as well as provide lessons that might be leveraged for other initiatives.

## **System Strength Mitigation Requirement**

EA did not support the earlier proposal to establish system strength zones to provide incentives to generators to locate in areas of high system strength. We are, therefore, supportive of the Draft Determination that instead lets the System Strength Locational (SSL) factor carry the full weight of the locational investment incentive. EA considers this is administratively much simpler and avoids issues of how to, and who should, define system strength zones.

EA notes that it could be argued that this issue extends to the definition of system strength nodes. However, we are comfortable that the current approach, with AEMO determining the minimum fault levels at critical network junctures, is an appropriate method to underpin SSL calculations.

We also agree with the decision to let the Australian Energy Regulator (AER) determine the methodology for calculating the System Strength Unit Price (SSUP). Although likely being an easier and more viable approach now, Long Run Average Cost (LRAC) is more likely to diverge from the theoretically superior Long Run Marginal Cost (LRMC) over time. Thus, increasing the risk that less efficient planning and investment outcomes result in future. Allowing the AER to take a bespoke approach in setting the SSUP will mitigate this risk.

EA also supports the grandfathering approach to applying the System Strength Mitigation Requirement (SSMR). Levying the SSMR on existing investments made without any knowledge or consideration of how the new framework would impact project viability would have had severe financial consequences for both individual proponents and the market more broadly. It would also do nothing to support the investment certainty required to achieve a robust, swift and efficient energy transition.

In contrast, EA considers there is more thought required on the timeframes for updating both SSUP and SSL. Although appreciating the certainty-efficiency trade-offs, EA considers that the proposed five-year fixed-term errs too far on the side of the former at the expense of the latter. It is a striking contrast with the AEMC's approach to calculating Marginal Loss Factors (MLFs). That is, with proponents already having to deal with charging uncertainty as annual updating is favoured on efficiency grounds. Moreover, it would only seem to delay the benefits of improved pricing expected from the framework over time.

With that said, if the AEMC feels an annual approach would prove too volatile for investors and NSPs, EA suggests a smoothing mechanism be considered. For example, capping increases in the annual SSUP by a fixed percentage that still allows for appropriate cost recovery over the life of the asset connection. This would mean prices reflect the most up to date assessment of system strength procurement and delivery costs. But it would also provide certainty to participants that impacts will not be felt all at once, such as with a change from one five-year determination period to the next.

We would welcome the opportunity to discuss this submission further with you. Should you have any questions, please contact me by phone on 03 9060 1357 or via email ([bradley.woods@energyaustralia.com.au](mailto:bradley.woods@energyaustralia.com.au)).

Yours sincerely,

**Bradley Woods**

Industry Regulation Lead