13 February 2026
Energy Policy, Western Australia

Dear Jai

Atmos Renewables - Energy Policy WA, submission relating to the Power System Security and Reliability (PSSR) Standards Review – Proposals 6 to 11

Atmos Renewables welcomes the opportunity to provide feedback on Proposals 6 to 11 under the Power System Security and Reliability (PSSR) Standards Review.

Atmos supports the objective of strengthening system security in the SWIS as it transitions toward higher penetrations of inverter-based resources. Grid-forming (GFM) capability will play an important role in maintaining stability in an inverter-dominated system, and we support reforms that enable its effective integration.

However, several proposed measures rely heavily on fixed technical thresholds within Minimum Access Standards. While clarity is important, overly prescriptive parameter requirements including defined SCR levels, response initiation times and current injection characteristics may constrain optimal plant tuning, reduce flexibility for site-specific conditions, and increase compliance costs without clear evidence of proportional system benefit.

Inverter-based facilities are typically tuned based on detailed system studies and the characteristics of their specific connection environment. Requiring demonstration under highly conservative conditions, and mandating operational settings aligned to those scenarios, risks degrading performance under normal system conditions and reducing overall efficiency. A performance-based framework focused on measurable system outcomes, rather than internal control architecture or fixed parameter values, would better support innovation and long-term optimisation.

Atmos also notes that more onerous obligations are proposed for GFM facilities without corresponding structural incentives or market recognition. Absent economic signals, proponents are likely to pursue lowest-cost compliance pathways, which may limit voluntary deployment of enhanced GFM capability.

Hybrid facilities require careful treatment to ensure compliance obligations reflect functional roles and do not unintentionally restrict efficient project configurations. Administrative efficiency will also be critical; streamlined processes for capability upgrades, including firmware-based transitions from GFL to GFM, would materially support system outcomes.

Finally, economic efficiency must remain central. Overly conservative or prescriptive standards risk increasing capital costs and financing uncertainty, with impacts ultimately borne by consumers. The framework should balance security, practicality and cost efficiency to ensure the transition to an inverter-dominated system occurs at least cost.

Atmos supports continued engagement to ensure final drafting reflects practical operability and delivers secure, investable and economically efficient outcomes for the SWIS.

Proposal 6 – Withstand Short Circuit Ratio (SCR)

Atmos acknowledges the importance of ensuring facilities remain stable under declining system strength conditions and supports differentiating between grid-forming and grid-following capabilities.
However, embedding fixed SCR withstand thresholds within the Minimum Access Standard should be approached carefully. SCR is a simplified indicator of system strength and does not fully capture the dynamic characteristics of a specific connection point. Requiring facilities to demonstrate and effectively operate at highly conservative SCR levels may result in tuning for worst-case theoretical conditions rather than real network environments.
In practice, inverter-based resources are configured based on detailed system studies and site-specific characteristics. Mandating that compliance settings cannot differ from operational settings risks constraining optimisation and may degrade performance under normal operating conditions.
A more flexible framework that allows demonstration of capability without permanently constraining operational tuning would better support both security and efficiency outcomes.

Proposal 7 – Voltage Phase Angle Jump

Atmos supports ensuring that facilities do not disconnect under credible contingency events involving phase angle shifts.
However, the proposed requirement for grid-forming inverters to withstand a 25-degree phase angle jump and suppress the jump within 20ms appears highly prescriptive. Phase angle disturbances of material magnitude are typically associated with fault events already addressed under disturbance ride-through requirements. Additional suppression mandates should be supported by clear evidence of incremental system benefit.
The focus should remain on ensuring facilities remain connected and operate securely, rather than prescribing specific internal response speeds that may constrain control strategies and reduce flexibility in plant tuning.

Proposal 8 – Active and Reactive Current Response During and After Contingencies

Atmos supports ensuring adequate reactive current support during contingencies and timely recovery of active power following disturbance clearance. We acknowledge the updated consultation paper now allows commencement and rise time assessment at the inverter terminals rather than solely at the connection point. This is a practical and constructive refinement that better reflects how inverter controls are designed, commissioned and tested, particularly for facilities with extensive internal collector systems. Notwithstanding this improvement, embedding tightly defined commencement times, rise times and current prioritisation requirements within the Minimum Access Standard continues to risk limiting flexibility and constraining optimal tuning for site-specific network conditions. Inverter response characteristics are inherently dependent on the electrical environment in which they operate, and rigid parameterisation may not deliver proportionate system benefit in all cases. We support recognising total current contribution rather than isolating reactive current, as this more accurately reflects inverter behaviour during disturbances. However, additional requirements such as fixed opposition timeframes for voltage magnitude changes should only

be incorporated where supported by clear and demonstrated system need. Performance specifications should remain focused on measurable system outcomes rather than detailed prescription of internal inverter control architecture.

Proposal 9 – Disturbance Ride Through for Multiple Disturbances

Atmos supports improved drafting clarity, including clearer definitions of disturbance sequencing and “end of disturbance.”
However, expectations regarding continuous uninterrupted operation during complex or overlapping disturbance events should remain proportionate and technically achievable. A negotiated pathway for more complex combinations of events is appropriate and consistent with a performance-based regulatory approach.

Proposal 10 – Damping of Power System Oscillations

Atmos agrees that generating systems should not degrade damping or introduce instability. However, applying a default oscillation frequency range up to 300 Hz may exceed what is practically necessary or technically justified. Control bandwidth varies across technologies, and requirements should be grounded in demonstrated system need rather than broad default assumptions.
The emphasis should remain on ensuring stable system behaviour, not prescribing specific internal bandwidth capabilities.

Proposal 11 – Partial Load Rejection

Atmos supports clarifying that beneficial programmed responses, including inertial and active power responses opposing disturbances, are permissible within the definition of continuous uninterrupted operation.
Providing explicit recognition of these behaviours reduces ambiguity and removes potential barriers to the deployment of advanced grid-forming capability.

Concluding Remarks

Atmos supports the objective of strengthening system security in the SWIS. However, we encourage Energy Policy WA to ensure that the final drafting of Proposals 6–11:

Maintains a performance-based approach focused on measurable system outcomes;

Preserves flexibility for site-specific tuning and optimisation;

Avoids embedding highly prescriptive internal control requirements without clear system evidence; and

Continues to balance security objectives with economic efficiency and investment certainty.

With appropriate calibration, the revised standards can support secure system operation while maintaining an investable and cost-efficient pathway for the deployment of inverter-based resources in Western Australia.

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