COLLGAR
WIND FARM

11 November 2025

Dora Guzeleva
Chair, Power System Security and Reliability (PSSR) Standards Working Group
Energy Policy WA
Department of Energy and Economic Diversification
Level 1, 66 St Georges Terrace
Perth, WA 6892

Via email**:** energymarkets@deed.wa.gov.au

Dear Ms Guzeleva

RE: Power System Security and Reliability (PSSR) Standards Working Group Proposal 20

I am pleased to provide this submission on behalf of Collgar Renewables (**Collgar**). Collgar operates the Collgar Wind Farm (**CWF**) a large-scale renewable generation facility connected to the South West Interconnected System in the East Country region near Merredin. We are a registered Market Participant in the Wholesale Electricity Market, operating under the Electricity System and Market Rules, Technical Rules and our Generator Performance Standards. Collgar is currently in various stages of development of multiple greenfield windfarms across the SWIS.

As an organisation with a renewable facility considering development of inverter based systems, our current and future operations are directly affected by the PSSR program, including proposals that shape system strength, GPS processes and the interaction between the Technical Rules and the ESM Rules, which in turn influence curtailment risk, operational flexibility and investment planning for both existing assets and future developments.

Collgar appreciates the opportunity to comment on Proposal 20 of the PSSR Standards Review. Collgar is largely supportive of the proposed changes, with one material exception.

Position summary

- Collgar is broadly comfortable with the package of amendments.
- Collgar does not support the approach outlined in 3.14 Network Service Provider Obligation, system strength (pp. 307–308).

System strength obligation

Western Power proposes to “introduce a new clause in section 2.3 of the Technical Rules that requires the Network Service Provider to plan and develop the network, including using non-co-optimised essential system services, to provide sufficient system strength to meet the stability requirements defined in section 2.2 and the transmission and distribution system protection requirements defined in section 2.9.” Collgar considers this a band-aid solution. It largely reflects current practice, which recent events demonstrate is not delivering adequate outcomes. A durable framework is required.

Minimum system strength and do-no-harm

As set out in our previous letter dated 7 August 2025, Collgar supports a framework that explicitly defines and maintains minimum system strength levels and a do-no-harm provision similar to the NEM (refer to NER 5.3.4B). Such a framework could have avoided, or materially mitigated, the impacts observed following the energisation of Cunderdin Solar and BESS on the East Country network, including:

- The 08/2024 oscillation event, which damaged reactive plant at Merredin Terminal (MRT) and resulted in curtailment of other IBR in the region, notably Merredin Solar and Collgar Wind Farm.
- The semi-permanent disconnection of 132 kV and 220 kV at MRT, which appears to have further reduced system strength in the area.
- Increased voltage instability and increased risk of oscillations and potentially harmonics in the region, with further curtailment in May to July 2025, and another oscillation incident on 4–5 November 2025.

While designing a do-no-harm process might be complex, it is not a reason to defer it. It is essential for a secure and efficient energy transition.

Near-term remediation and transparency

We understand, based on statements at the Major Connections Forum, that Western Power has ordered synchronous condensers. The proposed locations are unclear. Collgar strongly encourages installation in the MRT area, and requests transparency on siting and timing. Clarity would provide confidence for the ongoing operation of Collgar Wind Farm and for new developments in the district.

Emerging risks in North Country

Similar security and reliability issues found in the East Country will likely arise in North Country as further wind and other IBR projects connect. A robust minimum system strength framework is needed urgently to avoid repetition of East Country outcomes, for existing and new generators.

Preferred framework, aligned with the NEM (support for option (b) on p. 308)

Collgar recommends adopting a NEM-style framework that includes:

- NER 5.20.6 Publication of system strength requirements methodologies, supported by AEMO's System Strength Requirements Methodology (link) that sets out:
    - The system strength nodes and the process to declare them.
    - Assumptions about the size, type and operational profile of connecting facilities.
    - The modelling and analysis methodologies to determine nodes and minimum three-phase fault levels.
    - Treatment of connection forecasts at nodes and the definition of stable voltage waveforms for stable operation.
- NER 5.20.7 Publication of System Strength Report, providing regular, transparent reporting against the methodology.

This framework provides clear obligations, forward visibility and a consistent basis for planning, procurement and connection, benefiting both existing and new generators.

Concerns with Western Power's outline for approach (a)

Collgar has the following concerns with Western Power's proposed approach:

- Focus on new connections only. The framework must also address existing generators, including Collgar Wind Farm.
- EMT modelling practicality. Users face challenges in providing suitable EMT models, and as far as we are aware, a fully functional SWIS-wide EMT model is not yet available to support efficient assessment.
- Characterisation of NEM-approach issues. Western Power's stated issues, such as investment in synchronous condensers and coordinated retuning of control systems, will be necessary under any approach. In practice, it seems Western Power is already pursuing these measures in the Merredin area as we speak. A robust framework will enable proactive, timely action and avoid unnecessary curtailment.

Dual Framework

Section 3.3.4.2 appears to propose a GPS registration process duplicates Part 3A of the ESM Rules, adding ambiguity and administrative cost without benefit. Overlapping GPS obligations across the Technical Rules and the ESM Rules makes compliance harder and creates ongoing work to keep both instruments aligned.

Requests and next steps

Collgar requests that the final package:

1. Adopts a minimum system strength and do-no-harm framework consistent with option b) and aligned to the NEM, including publication of a methodology and annual reporting.
2. Addresses obligations for existing as well as new generators.
3. Provides early and transparent information on the location and timing of synchronous condensers, with priority for the MRT area.

Collgar looks forward to discussing this feedback directly with EPWA and through future Working Groups. Should you have any questions, please don't hesitate to contact me directly.

Kind regards

Steven De Clerck

Chief Operating Officer