

AEMC
Via website

Date: 7th August 2025

Subject: Efficient provision of inertia Draft Determination¹

About Iberdrola Australia

Iberdrola Australia delivers reliable energy to customers through a portfolio of wind and solar capacity across the NEM. Iberdrola Australia also owns and operates a portfolio of firming capacity, including open cycle gas turbines, dual fuel peaking capacity, and battery storage. Our development pipeline has projects at differing stages of development covering wind, solar and energy storage. This broad portfolio of assets has allowed us to retail electricity to over 400 metered sites to some of Australia's most iconic large energy users.

Iberdrola Australia is part of the global Iberdrola group. With more than 120 years of history, Iberdrola is a global energy leader, the world's number-one producer of wind power, an operator of large-scale transmission and distribution assets in three continents making it one of the world's biggest electricity utilities by market capitalisation.

Our submission

Thank you for the opportunity to make a submission on the procurement of inertia for the NEM. The key points of our submission are:

- Provision of inertia from conventional resources will likely decline faster than anticipated, becoming more challenging to deliver (noting rising coal outage rates) or more expensive (wear and tear if resources are relied on more often).
- We note that very little progress has been made on identifying or delivering new sources of system strength, inertia, system restart services, or other grid services.
- The economics arguments put forward by the AEMC in their Draft Determination are reasonable *if there is an orderly transition*. However, a stronger planning framework on TNSPs and AEMO is required to ensure that sufficient resources are procured sufficiently far in advance to guarantee delivery.
- We consider this requires returning to mandated procurement schedules by AEMO and TNSPs to ensure that directions of existing resources can no longer be the "fallback" approach for future provision of system services. These should be NER based obligations, and including requirements for AEMO to publish investable requirements in the ESOO for system services.

¹ <https://www.aemc.gov.au/sites/default/files/2025-06/Efficient%20provision%20of%20inertia%20-%20draft%20determination.pdf>

Risk of over-reliance on central planning without strict guidelines

We acknowledge and appreciate the work undertaken by AEMC on this important issue. In particular, we agree it may be reasonable that system strength requirements will effectively be the binding constraint such that inertia can be delivered as a side product from syncons and grid forming batteries.

However, our key concerns are i) whether, without the price and resource discovery delivered through a market, the efficient level of inertia can be determined and efficiently procured by a central planner and ii) whether the current obligations on AEMO and the TNSPs are sufficient to deliver the necessary resources.

Under the current framework, AEMO and the TNSPs are the sole entities able to value, procure, and dispatch inertia. There would be limited transparency for participants and limited confidence that non-network solutions (e.g., contracting BESS) would be procured. This makes long-term contracting essential.

If a lack of efficient planning or procurement leads to shortfalls of inertia (in particular for efficient levels above and beyond the defined minimum level) then there is no recourse available to participants, and no financial or other penalties for the system planners. It would also be challenging for battery developers to recognise value for inertia in their business cases at the time of FID unless inertia can be contracted at the same time. (Participants also cannot guarantee that their owned energy projects will be exempt from constraints if they bring in new assets.). Given lead times for new syncons, there is a credible risk of system service shortfalls in the future if the pace of change is (as has historically always been the case) faster than formally anticipated.

By way of example, we note that system strength constraints are now prevalent in the NEM. In particular, “inverter limit” constraints now regularly require generators to switch off their inverters. The impact of these constraints may be invisible to many market analysts, as these constraints require participants to report reduced or zero availability (which disrupts the typical way that constrained energy is measured, by reporting the difference between dispatch and availability out of AEMO MMS data).

These constraints come with significant costs to participants and consumers. The *Efficient management of system strength* rule change requires SSS Providers to provide the efficient level of system strength by December 2025, but it is not yet clear how it will impact on these constraints or the typical level of constraints that existing and (critically) new generators can expect going forward.

The *Improving security frameworks* rule is not delivering the required services

Building on the above points, we are concerned that the ISF rule change is not supporting the identification and delivery of replacement system services. Despite AEMO specifically suggesting that Type 2 contracts could be “*effectively utilised to progress operational transitions*”, AEMO has not commenced using Type 2 contracts for even the examples specifically raised by AEMO in its submission². These examples included trials of procuring additional inertia (above minimum levels), trialling 100% IBR sub-networks, or the supply system strength from grid forming inverters.

This lack of forward planning is leading to material and expensive outcomes to consumers. For example, AEMO has not undertaken any trials of how to replace the “minimum synchronous units”

² <https://www.aemc.gov.au/sites/default/files/2024-02/AEMO.pdf>

constraint in South Australia with emerging technologies. We note that AEMO's procurement powers expire in just over four years, leaving very little time to test and establish new services.

Critically, it would be not be consistent with the NEO (on cost, reliability, or emissions) if AEMO ultimately recommended extending the life of unreliable coal generators to provide system services if no reasonable efforts have been made to identify and procure alternatives.

We also note that the System Restart standard was breached in Queensland this year, due to the assumption that existing resources could continue to be relied upon indefinitely. To our knowledge, AEMO has not undertaken any quantitative analysis of how the system could be restarted once existing thermal units retire (or are unable to continue to provide the service as they age). It is critical that AEMO and TNSPs be required to provide forward looking advice (T+5 years) on what resources could provide viable system restart pathways.

AEMO's 2024 Transition Plan for System Security did not provide any long-term modelling of a zero coal and/or zero emissions grid that could indicate what resources could be required in the future. As we and others noted in the previous consultation, no other participant has access to the confidential models used by AEMO to determine system security needs. It is therefore critical that AEMO develop and publicly share their modelling – even if (or especially if) AEMO has not yet identified solutions.

In AEMO's submission³ to the ISF, they noted:

AEMO does not consider a Rules obligation with stringent timeframes and Rules based consultation obligations is best suited to providing this transparency and opportunity for collaboration.

However, the flexible approach under the ISF does not seem to be delivering. This again suggests that relying on central planning to deliver critical system services is a high risk approach for consumers without strong accompanying regulations.

We therefore recommend the AEMC revisit this rule change and work with industry to develop new frameworks to ensure a smooth transition. In particular, we consider that there is a role for AEMC to strengthen the planning obligations, including for inertia if a spot market is not to be delivered.

AEMO and TNSPs need NER-based targets that are clear, unambiguous, and enforceable. This reflects the asymmetry in cost and risk of under-procurement but it also relieves AEMO and TNSPs from the need to balance these risks themselves (and risk criticism of spending too much or too little). It will also simplify internal resource allocations – rules based targets are critical for allocating budget and training for system engineers.

We recommend that a body such as the Reliability Panel work with AEMO and TNSPs to identify a risk-adjusted efficient pathway for reducing our reliance on existing resources. We suggest credible targets would be:

- Mandate a progressive reduction in AEMO and TNSP's use of existing thermal resources to deliver inertia, system strength, and system restart services from today's level to zero in 2030.
 - This could initially be on an N-2 coal power station level (i.e., AEMO must certify that the grid can remain secure even when two current coal power stations are unavailable), and transition to no reliance on existing coal units by ~2030.

³ <https://www.aemc.gov.au/sites/default/files/2024-02/AEMO.pdf>

- The Reliability Panel or similar body could be tasked with reviewing AEMO's progress on Type 2 contracts and setting targets for AEMO's procurement (in the absence of market services). This could include whether Type 2 contracts are needed for services where AEMO is unable to guarantee eligibility of a new project for existing services (e.g., trials of what resources could provide system restart if AEMO's modelling cannot provide investable guidelines).
- AEMO should have an NER-based obligation to report in the ESOO the volume of required services, including service definitions at a level sufficient to bring a project to FID.
- If an inertia spot market is not established, mandating that TNSPs and AEMO procure sufficient inertia to be *able* to dispatch periods of zero emissions electricity generation by 2030. This is already later than when the available renewable energy resource will be able to provide 100% of instantaneous demand.

Conclusion

We look forward to continuing to work with AEMC to deliver an efficient and low emissions grid. If you would like to discuss this submission, please contact me on joel.gilmore@iberdrola.com.au or 0411 267 044.

Yours sincerely

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