AEMC
Australian Energy Market Commission

INFORMATION

Efficient provision of inertia

We have decided not to make a final rule to implement a real-time inertia market because there are currently no net benefits to consumers

The Commission has published its final determination on a rule change request from the Australian Energy Council (AEC) to introduce operational procurement of inertia in the National Electricity Market (NEM). We have decided not to make a rule to implement a real-time inertia market because:

- the expected benefits of a real-time inertia market would be outweighed by the upfront and ongoing costs of designing, implementing and operating a market.
- based on current information, expected inertia supply will greatly exceed minimum requirements over the foreseeable horizon, due to work already underway to meet system strength requirements.
- we will not miss out on benefits by waiting, because AEMO is already progressing technical work that would be necessary to implement a future inertia real-time market.

Our final decision benefits consumers by avoiding implementation costs for a new mechanism that is unlikely to deliver net benefits. However, to continually and proactively monitor conditions, the Commission will task the Reliability Panel with monitoring system conditions through its annual Reliability and Security Report to identify when operational procurement could become beneficial.

Inertia supply is expected to exceed minimum inertia requirements in the period to 2045

Inertia refers to the capability of the power system to instantaneously resist changes in frequency. It is essential for any alternating current (AC) power system as it helps maintain system frequency within secure and safe limits, especially following disturbances.

Through network investments and contracts with market participants that are needed for transmission network service providers (TNSPs) to meet their system strength obligations, a large amount of inertia will be provided as an unavoidable co-benefit. Although these investments are for system strength, their inertia contribution is expected to be sufficient in the near term. The cost of meeting these system strength obligations with synchronous condensers would not be avoided with the addition of a real-time market for inertia.

Recent system security reforms and technical work are still progressing

The *Improving security frameworks for the energy transition* rule, completed in March 2024, enhanced the inertia procurement framework by explicitly allowing synthetic inertia (provided by grid-forming inverters) to contribute to meeting minimum inertia requirements. Other regulatory changes to the framework promoted more proactive procurement of inertia and the joint consideration of system security costs.

We consider that significant changes to the current inertia framework could increase security contracting costs, could result in consumers incurring costs for tools that may not be used, and could leave the industry with an unclear direction as to how to procure and provide inertia and system strength throughout the transition, risking system security.

Australian Energy Market Commission Level 15, 60 Castlereagh Street Sydney NSW 2000
T: 02 8296 7800 E: aemc@aemc.gov.au W: www.aemc.gov.au

The Reliability Panel will monitor inertia-related metrics in its annual Reliability and Security Report

Our analysis indicated that procuring additional inertia could provide net benefits to consumers, but under different conditions that are currently not expected to materialise. However, if conditions evolve in an unexpected way, then there may be net benefits to procuring inertia in real-time. For example, if there is (or there is expected to be):

- a significant increase in minimum inertia requirements
- a rise in the expected costs of meeting inertia needs through the current inertia framework (with obligations set to commence from 1 December 2027),
- a sustained increase in contingency FCAS prices, primarily for the 1-second service, or
- an increase in the number or value of RoCoF-related constraints, including any new constraints that AEMO may formulate to maintain secure operation,

then the potential benefits of a real-time inertia market would increase.

To ensure that we do not miss out on potential benefits, the Commission will task the Reliability Panel to monitor these inertia-related metrics through its annual Reliability and Security Report (RASR, formerly known as the Annual Market Performance Review).

The Commission will amend the Terms of Reference for the RASR so that the Panel must publicly report on the metrics above (and any other metrics that it considers suitable), comment on their evolution and current expectations, and optionally, comment on the influence any changes could have on the benefits of operationally procuring inertia.

If the Panel comes to a view that the operational procurement of inertia should be reconsidered, it could choose to submit a rule change request to the Commission. Any decision on implementing a new procurement mechanism in the NER would remain a decision for the Commission through a future rule change process.

We do not consider that changes to broader security frameworks are necessary at this time

Stakeholders submitted various suggestions for amendments to existing security frameworks to promote accountability, competition and transparency. The Commission has carefully considered all feedback and has determined that these changes are not required through this rule change process. We consider that additional obligations, prescriptive processes or new governance frameworks are not likely to provide clear benefits to consumers, and may duplicate existing frameworks or result in unintended consequences.

AEMO and NSPs are making progress on embedding existing security frameworks to keep the system secure through the transition:

- AEMO is developing its Transition Plan for System Security, which will be published in December 2025. It will provide substantial information on its plan to manage system security through the transition.
- We understand that AEMO intends to begin procurement shortly for Type 2 transitional service contracts to trial new technologies, or new applications of existing technologies to manage system security
- TNSPs have continued negotiations and begun new procurement processes for contracts with non-network options (such as grid-forming batteries or synchronous generators converted to synchronous condensers) to provide system security.

For information contact:

Media enquiries: media@aemc.gov.au

9 October 2025