



Reliability & Security Report
AEMC Terms of Reference to the Reliability Panel
3 December 2025

Introduction

These terms of reference are intended to guide the Reliability Panel (the Panel) in its Reliability & Security Report (RASR). The Australian Energy Market Commission (AEMC) requests that the Panel consider these to be the standing terms of reference for its annual review of the performance of aspects of the market specified under clause 8.8.3(b) of the National Electricity Rules (NER). For clarity, the market that this review relates to is the National Electricity Market (NEM). The purpose, scope and timing for this review are set out below.

Background

The functions of the Panel are set out in clause 8.8.1 of the NER.

- Under clause 8.8.1(a)(1), the Panel has a role to monitor, review and report on the performance of the market in terms of reliability of the power system.¹
- Under clause 8.8.1(a)(5), the Panel has a role to report to the AEMC and participating jurisdictions on overall power system reliability matters, power system security and reliability standards and the Australian Energy Market Operator's (AEMO) power to issue directions in connection with maintaining or re-establishing the power system in a reliable operating state. The Panel may also make recommendations on changes to the market or the NER and any other matters which it considers necessary.

Consistent with these functions, clause 8.8.3(b) of the NER requires the Panel to conduct a review of the performance of certain aspects of the market, at least once every financial year and at other such times as the AEMC may request. The Panel must conclude each annual review as soon as reasonably practicable, but in any case, by the end of the financial year following the financial year to which the review relates as per clause 8.8.3(b). The Panel must conduct its annual review in terms of:

- reliability of the power system;
- the power system security and reliability standards;
- the system restart standard;
- the guidelines referred to in clause 8.8.1(a)(3);²

¹ In performing this function, clause 8.8.1 (b) prohibits the Panel from monitoring, reviewing or reporting on the performance of the market in terms of reliability of distribution networks. However, the panel may collate, consider and report information in relation to the reliability of distribution networks as measured against the relevant standards of each participating jurisdiction, in so far as the reliability of those networks impacts on overall power system reliability

² The guidelines referred to in clause 8.8.1 (a)(3) govern how AEMO exercises its power to issue directions in connection with maintaining or re-establishing the power system in a reliable operating state.

- the policies and guidelines referred to in clause 8.8.1(a)(4);³ and
- the guidelines referred to in clause 8.8.1 (a)(9).⁴

In addition, at the request of the AEMC, the Panel must provide advice in relation to the safety, security and reliability of the national electricity system.⁵

The Panel may, but is not required to, conduct this review in accordance with the Panel review process outlined in clauses 8.8.3(d)-(l) of the NER.

Purpose of the review

The RASR provides the Panel with the opportunity to consider specific events that have occurred in the NEM over the previous financial year, and to assess the performance of the power system against various reliability and security measures. The Panel should consider the performance and where applicable, provide advice that may assist governments, policy makers and market institutions improve the power system's reliability and security.

The AEMC requests the Panel prepare a report to communicate the findings of its review of the previous financial year, including its observations and commentary on the reliability and security performance of the power system.

Where possible, the Panel should avoid reporting on or duplicating data presented in other market reports. The Panel should only draw upon this data to assess the power system's performance against the relevant reliability and security standards and provide advice on how to improve the reliability and security of the power system.

Scope of the review

The AEMC requests that the Panel:

1. review the performance of the market in terms of reliability and security of the power system; and
2. provide advice in relation to the reliability and security of the power system.

The Panel should have regard to the following matters when conducting its review:

- Overall power system performance

To provide an overview of the performance of the power system, and where relevant information is available, the Panel should consider performance in terms of reliability and security, and from the perspective of:

- the transmission and distribution sectors
- the generation sector.

The Panel's review of overall power system performance should include consideration of the impact on end-use customers. For example, customer impact could be measured in terms of the length of time that energy was not supplied to customers due to an incident occurring on the power system.

³ The policies and guidelines referred to in clause 8.8.1 (a)(4) govern how AEMO exercises its power to enter into contracts for the provision of reserves.

⁴ The guidelines referred to in clause 8.8.1 (a)(9) identify, or provide for the identification of, operating incidents and other incidents that are of significance for the purposes of the definition of "Reviewable operating incident" in clause 4.8.15.

⁵ National Electricity Law s.38(2)(b).

The Panel should also consider significant power system incidents ("reviewable operating incidents") that have occurred in the previous year.

The Panel should also consider general trends in the power system, to the extent possible, such as changes in the generation mix or bulk transmission capability. This should include consideration of historic changes, as well as any forecasts or projections of future changes in the power system.

- Reliability performance of the power system, historic and forecast

The Panel should review performance against the reliability standard for generation and bulk transmission. This would require consideration of actual observed levels of unserved energy (USE) over the previous financial year. As such, consideration could be given to actual and forecast supply and demand conditions, by way of providing context and explanation as to the potential causes and drivers of these historic and forecast USE outcomes. This may assist the Panel to form a view on whether any underlying changes to reliability performance have, or are expected to have, occurred.

The Panel should also consider AEMO's use of the reliability safety net mechanisms over the previous financial year. This includes incidents of, and reasons for, the use of directions and the Reliability and Emergency Reserve Trader (RERT) mechanism. It also includes consideration of the frequency of AEMO's issuance of lack of reserve notices over the previous year.

- Security performance of the power system, historic and forecast

The Panel should review historic performance of the power system against the relevant technical standards. In particular, the Panel could have regard to: frequency operating standards; voltage limits; interconnector secure line rating limits; system stability; and any other factors that the Panel may consider relevant. The Panel could also consider any projections or forecasts of future power system security performance, and to the extent relevant, provide any context and explanation on the potential causes and drivers of both historic and forecast power system security performance.

- Monitoring and reporting of metrics relevant to the potential operational procurement of inertia

The Panel should monitor and report on metrics that affect the potential economic benefits of operationally procuring inertia. The Panel should present both historic and expected future trends of these metrics, along with any relevant commentary on potential operational procurement.

The Panel may also comment on how potential future changes to each of the metrics listed below would affect the net benefits of operationally procuring inertia (either positively or negatively), and may also include comments on the metric's magnitude of effect on net benefits.

The factors that the Panel could report on include:

- the inertia requirements specified by AEMO in its annual inertia reports
- the estimated cost to consumers from Inertia Service Providers meeting their inertia obligations,
- the 1-second raise and lower contingency FCAS market prices
- the marginal value of any rate of change of frequency dispatch constraints
- any other metrics that the Panel considers relevant to assessing benefits from the potential operational procurement of inertia.

The Panel may also wish to consider the following reliability and security matters when conducting its review, if it is appropriate to do so:

- A comparison of power system performance against the previous year, and the reasons for any variations.
- A comparison of power system performance between regions, and reasons for any variations.
- The degree of accuracy in forecast and actual data, and reasons for any variations.
- Mechanisms in place for promoting power system performance, and whether they are effective.

The Panel should also have regard to any relevant reviews, reports or other processes being progressed by the other market bodies, or any other agency, that considers or proposes potential market framework changes that will directly impact the NEM power system. The Panel may reference these in its review to assess and provide advice on the reliability and security performance of the power system. Where possible, the Panel should avoid duplicating information reported in other relevant reviews, reports and other processes,

Process and deliverables

The Panel must notify all registered participants of the commencement of this review and of the indicative timetable for this review. This information is to be published by the AEMC on its website.

The Panel may consider, where practicable, inviting stakeholders' submissions and/or holding a public meeting, in each case with a reasonable period of notice to stakeholders.

By the end of the financial year following the financial year to which the review relates, the Panel must send a copy of the final report to the AEMC for publication on the AEMC website.

The Panel should consider engaging with key stakeholders during the RASR for the purposes of coordinating and gathering all relevant information for the preparation of the final report. Key stakeholders include the following:

- AEMO
- The Australian Energy Regulator
- Transmission network service providers
- Distribution network service providers
- Jurisdictional regulatory bodies and governments.

The Panel may also engage more broadly with other external stakeholders, including consumer representatives.