



**Annual Market Performance Review  
AEMC Terms of Reference to the Reliability Panel  
6 September 2018**

**Introduction**

These terms of reference are intended to guide the Reliability Panel (the Panel) in its next annual market performance review (AMPR). 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.<sup>1</sup>
- 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 under this clause by the end of the financial year following the financial year to which the review relates. 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);<sup>2</sup>
- the policies and guidelines referred to in clause 8.8.1(a)(4);<sup>3</sup> and

---

<sup>1</sup> 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.

<sup>2</sup> 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 guidelines referred to in clause 8.8.1 (a)(9).<sup>4</sup>

The Panel must also monitor, review and report on the safety of the national electricity system.<sup>5</sup>

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 AMPR 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, security and safety measures.

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

The report also provides an opportunity for the Panel to consolidate key information related to the performance of the power system in a single publication for the purpose of informing stakeholders. Among other things, this may assist governments, policy makers and market institutions to monitor the performance of the power system, and to identify the likely need for improvements to the various measures available for delivering reliability, security and safety.

### **Scope of the review**

The AEMC requests that the Panel review the performance of the market in terms of reliability, security and safety of the power system. The Panel should have regard to the following matters when conducting its review:

- Overall power system performance

To provide a comprehensive 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.

The Panel should also consider significant power system incidents ("reviewable operating incidents") which have occurred in the previous year. Where possible, consideration should be given to the cause of the incident (a reliability or security event), the impact of the incident (on reliability or security) and the sector of origin (generation, transmission or distribution).

The Panel should also consider general trends in the power system, 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

---

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> National Electricity Law s.38(2)(a).

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 well as projections and forecasts of expected levels of USE in future years. As such, consideration should 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 should 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 should also consider any projections or forecasts of future power system security performance. The Panel should provide context and explanation on the potential causes and drivers of both historic and forecast power system security performance.

- Safety performance of the power system

Safety of the power system is closely linked to the security of the power system and relates primarily to the operation of assets and equipment within their technical limits. Therefore, for the purposes of the safety assessment the Panel should consider the maintenance of power system security within the relevant standards and technical limits.

The Panel may also wish to consider the following matters when conducting its review:

- 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 should consider and explain how these reports and processes are relevant to any issues identified by the Panel in its review.

### **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 engage with key stakeholders during the AMPR for the purposes of coordinating and gathering all relevant information for preparation of the final report. Key stakeholders include the following:

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

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

The Panel should have regard to any relevant reports/material, which may include consultant reports or advice.