

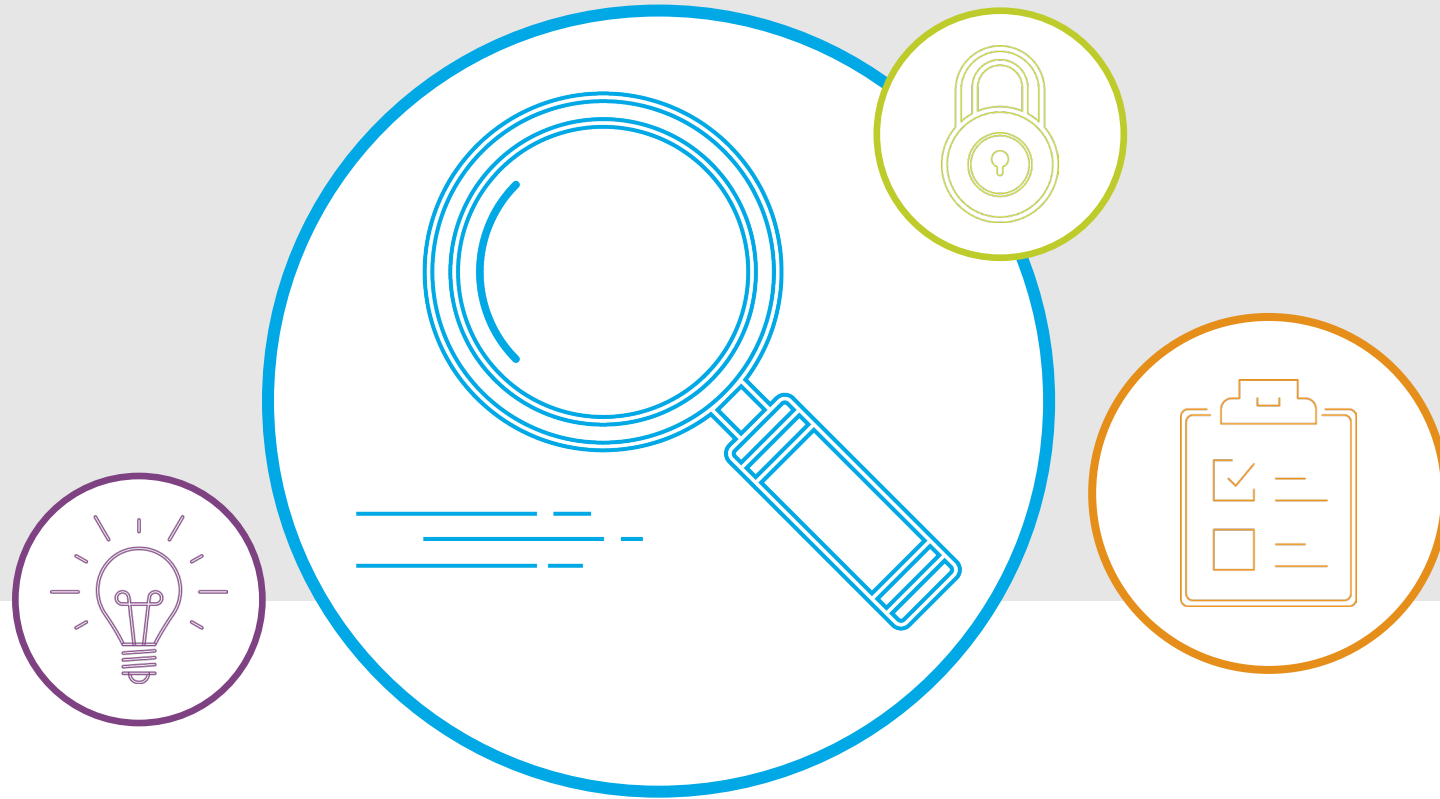
REVIEW OF THE FORM OF THE RELIABILITY STANDARD AND APC

VCR PUBLIC FORUM

4 APRIL 2024

RELIABILITY
PANEL **AEMC**

What we do



The Reliability Panel, which forms part of the AEMC's institutional arrangements, **reviews and reports** on the safety, security and reliability of the national electricity system.

Who we are

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The Panel is comprised of members who represent a range of participants in the national electricity market, including:



Consumer groups



Generators



Network businesses



Retailers



Australian Energy Market Operator (AEMO)

Context and background

Review of the Form of the Reliability Standard and Administered Pricing Cap (APC):

- The scope of the Review is to provide the Reliability Panel’s recommendations on the form of the reliability standard and APC to apply from 1 July 2028 to 30 June 2032.



The Panel’s **2022 Reliability Standard and Settings Review (RSSR)** recommended a follow-up review to consider as the NEM continues to transition, whether the:

- characteristic of the reliability risk may change; and
- existing form of the standard needs remains appropriate to address the changing reliability risk

APC

As part of this Review, the Panel is also reviewing the form of the APC, following the market suspension of June 2022.



We published a **Directions Paper in November 2023** seeking stakeholders’ feedback on:

- the four key findings from the simulation modelling and their implications on the form of the reliability standard;
- consideration of consumers’ preferences in assessing the form and level of the reliability standard.



- The Panel will publish its **Draft Report in mid-April 2024** and its **Final Report in June 2024**.

Key modelling findings from the Directions Paper

Our under-resourced model suggests the following trends as the NEM transitions.



If USE events do occur, they may be longer and deeper, but less frequent.

- The average depth and duration of USE events may increase at higher levels of NEM VRE penetration.
- The duration of the longest USE events produced by the model also increases as the system transitions.
- This does not mean reliability risk will be higher in the future NEM, but the same amount of USE might be concentrated in a few larger events.



Reliability risks may shift from mainly being in summer to winter.

- Currently, reliability risk is highest in summer due to the risk of plant outages coinciding with high demand on hot days.
- At higher VRE penetrations, most of the USE events generated by the model occur in winter.



USE events may be driven increasingly by weather.

- In our modelling, weather reference years had a greater impact on USE events than forced outages.
- 'Dark doldrums' may impact the depth and duration of USE events.
- As the proportion of VRE in the system increases, the impact of these dark doldrums may also increase.
- Not all Doldrums result in USE but the majority of USE events occurred in a doldrum



Events may spread across the day rather than just appearing in the evening peak.

- With a relatively low level of VRE in the model, USE events occur almost exclusively in the 5-9pm evening peak.
- As the modelled NEM transitions, this USE begins to spread out across the day as some events become longer.
- While the evening peak remains the period with the most USE, the impact may extend overnight and into the next day as the duration of events increases.

Understanding how customers value the changing nature of reliability

- The Panel's Directions Paper outlined its view on how customers value the changing nature of reliability will be an important consideration for the level of the reliability standard – noting however the primary focus of the current review is the form of the standard rather than the level.
- If the Panel determines the form needs to change, the 2026 RSSR would set the level of the standard, accounting for the 2024 VCR findings and potentially other related work.
- As such, the Panel is working closely with the AER so that it may include some additional questions in the VCR based on the Panel's reliability modelling results.
- Should the Panel decide to change the form, the findings from the additional questions included in the VCR and update may then help inform consideration of the efficient level of the standard to be determined in the 2026 RSSR.
- The Panel has yet to decide whether the form of the standard needs to change, and accordingly whether the additional VCR questions proposed by the Panel will be required to inform the 2026 RSSR process.
- If the form of the standard does not change, the VCR questions may still provide valuable insights for future consideration of the reliability standard and/or the framework more broadly.

The proposed questions in the VCR based on the panel's modelling findings

Context:

- The draft questions included in the VCR pilot survey have been informed by the Panel's work on the changing reliability risk profile as the NEM transitions.
- These questions are intended to test if consumers are risk-averse, put more weight on certain types of large outage events, and are, therefore, willing to pay a more to avoid them.
- As noted in the directions paper, the Panel does not need the results of the VCR survey to decide on the form of the reliability standard. Rather the information will be used when the Panel carries out its review on the level of the standards and settings.
- Please note that the final questions included in the VCR may be different from those presented today – i.e. they may depend on the Panel's draft recommendation on the form of the standard, which will be published 18 April 2024.

Questions:

Question 1

Imagine a series of one-hour power outages that affected your home and local area, every day for one week every winter. What is the maximum increase, in \$ per month, you would be willing to pay in your electricity bill to avoid these power outages?

Question 2

What is the maximum increase, in \$ per month, you would be willing to pay if there was just a 1 in 10 chance of this happening in any year?

Next steps for the Review

- The Panel will publish a Draft Report on 18 April 2024
- The Draft Report will outline the Panel's recommendation on whether the form of the reliability standard needs to change.
- The Panel will continue to work closely with the AER on the VCR questions.



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