



7 March 2022

Mr Charles Popple  
Chair  
AEMC Reliability Panel

Lodged via the AEMC website

Dear Mr Popple,

### **Submission for 2022 Reliability Standard and Settings Review**

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in renewable energy and energy storage along with more than 7,000 solar and battery installers. We are committed to accelerating the decarbonisation of Australia's energy system as rapidly as possible, while maintaining a secure and reliable supply of electricity for customers.

In particular, we are focussed on developing regulatory frameworks to support efficient investment in the large number of new renewable generation and storage projects that are needed to deliver secure, reliable and zero emissions energy for consumers.

The CEC welcomes the opportunity to comment on the Reliability Panel's (the Panel) 2022 Reliability Standard and Settings Review (RSSR) issues paper.

The sheer scale of the National Electricity Market (NEM) decarbonisation currently underway makes this review of the reliability standard and settings especially important. In particular, it is essential that the Panel undertake a full and detailed analysis of the existing market frameworks, including the settings and the standard, with a view to assessing how they may be adjusted to account for decarbonisation.

The key challenge to delivering a safe and rapid decarbonisation of the NEM relates to ensuring there is a stable investment environment. Investors already need to manage a great deal of risk and uncertainty, both in terms of the regulatory, technical, and commercial environment, in order to bring projects to market. It's therefore essential that regulatory reform is carefully calibrated, to ensure it is fit for purpose and minimises the complexity and uncertainty managed by clean energy investors.

The CEC therefore urges regulatory decision makers, including the Panel and the Energy Security Board (ESB), to deliver regulatory reforms in a staged manner that properly assesses the nature of the underlying problem, and then explores incremental adjustments before designing entirely new frameworks. In particular, it is essential that the Panel be given full opportunity to assess the benefits of relatively 'incremental' changes,<sup>1</sup> such as changing the standard and settings, before the ESB commences work to introduce an entirely new capacity market mechanism.

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<sup>1</sup> Noting that these changes are not, in themselves, incremental; the form or level of the reliability standard has never actually been readjusted in the history of the NEM, while the reliability settings have been changed only a handful of times.

To this end, the CEC considers that it is critical the Panel's modelling is sufficiently detailed and extensive, to ensure it fully informs and quantifies the current qualitative descriptions of reliability 'problems' that are relied on as a justification for the introduction of blunt capacity mechanisms. This detailed analysis is crucial to ensuring that regulatory frameworks are adapted in a manner that is appropriate given the actual physical drivers of any reliability problems and are proportionate to the materiality of the problem identified.

As highlighted previously in our submission to the ESB's capacity mechanism project, we see the RSSR as a starting point for the ESB's consideration in their Post-2025 Market Design of mechanisms to enhance reliability and should consider the physical drivers of any reliability challenges, as well as whether changes to the existing frameworks can manage any identified challenges.

This should include consideration of the full suite of potential changes to the existing reliability standard and settings, and how this might support investment in new renewable capacity to enable improved reliability outcomes. In particular, the Panel and ESB should assess whether changes to the cumulative price threshold (CPT) could form an appropriate mechanism to support needed capacity. Reducing the frequency with which the CPT binds will create new contracting incentives, which will reduce investment risk and support the kinds of capacity needed to meet specific reliability challenges. Such a change to the CPT also defuses some of the political sensitivity associated with changes to other reliability settings, particularly increases in the market price cap (MPC).

More generally, the Panel's analysis in the 'base case' must consider as wide a range of scenarios as possible, when testing the capabilities of the existing reliability mechanisms to deliver needed capacity to maintain reliability. This should include all the various permutations of changes to the MPC, CPT, market floor price (MFP) and administered price cap (APC), as well as all the various inputs, such as technology costs and detailed weather data.

In addition, the Panel must take sufficient time and devote sufficient resources to fully unpacking and examining the implications of making any change to level and form of the reliability standard. This is a huge undertaking, given the fundamental role that the reliability standard plays both in terms of investment in and operation of the NEM. The CEC urges caution when assessing the standard and suggests that the time taken by the Panel to undertake any such assessment must be extended to ensure it can be done effectively.

To be clear, the CEC is not suggesting that changes to the reliability standard or settings necessarily represent 'minor' regulatory adjustments. On the contrary, increases in the MPC or CPT are likely to trigger participants to reassess their contracting and investment strategies, which is itself a complex exercise. The Panel must therefore carefully weigh the nature of any identified reliability challenges against the regulatory implementation costs stemming from any changes to the standards or settings.

In response to some of the detailed questions raised by the Reliability Panel in its issues paper:

#### **Question 1: Changes in the generation mix**

With regard to key considerations relating to the changes in generation mix, the CEC see the below three points as the key factors that must be considered by the Reliability Panel when assessing the standard and settings:

1. The significant system risks associated with earlier than expected coal closure, which demonstrates the urgency of reducing system reliance on these ageing assets
2. The critical role that transmission infrastructure will play in maintaining reliability and security, and
3. The importance of storage, as a complement to renewable generation and transmission investment.

To ensure effective analysis of these factors, the CEC sees detailed analysis as crucial to ensuring that regulatory frameworks are adapted in a manner that is appropriate given the actual physical drivers of any reliability problems and these being proportionate to the materiality of the problem identified. For example, the Panel should allow for consideration of some of the potential physical issues that may arise in relation to the transition, such as the so called 'dunkelflaute' events. Attaching some quantitative rigour to analysing the materiality of these kinds of events and assessing whether changes to the existing market frameworks can address them, must be the first stage of the broader assessment of reliability mechanisms, including any new capacity mechanism.

The CEC considers that diversified renewable generation, coupled with strategically located storage assets, as well as investment in transmission line infrastructure, is what is needed to address likely future reliability challenges. For this reason, the Panel's assessment should consider these specific physical drivers and to drive targeted investment in the specific capacity needed to address them.

The CEC also recognises the need to adequately capture the early exit of coal as a critical risk to system reliability. It is more likely than not that thermal coal exit will happen earlier than expected, bringing with it increased risk of system security and reliability issues.

#### **Question 2: Changes on the demand side**

The CEC considers that the Panel should reassess the nature of the demand trends that are most likely to impact on reliability.

This is consistent with our general view that understanding the nature of the physical drivers on a high renewable system is central to understanding any challenges for efficient investment and associated reliability problems.

In particular, we encourage the Panel to consider whether traditional peak demand periods will remain the main challenge to reliability. Further work is needed to explore whether other kinds of challenges to reliability are emerging, such as intra-day ramping, seasonal VRE availability and the challenges associated with minimum demand. This should then feed into consideration as to what elements of the reliability settings might be most capable of delivering reliability – particularly the role of the CPT in driving investment in assets that can help provide deep energy storage solutions.

Additionally, we encourage the Panel to include energy storage, flexible load and small-scale generation in distribution networks in any modelling, where possible. While we recognise this is still a developing area and therefore comes with increased complexity, the impact of distributed energy resources (DER) is material, and therefore needs to be factored into this review.

We see the Panel's review as the appropriate vehicle where the detailed modelling can be undertaken to firstly identify the nature of these emerging demand side trends changes and risks, and to quantify them.

#### **Question 4: ESB Post-2025 Market Design Reforms**

This question is structured incorrectly – it should instead ask how the Panel's assessment of the reliability standard and setting may impact the work undertaken by the ESB in developing its Post 2025 reforms, particularly consideration of any new capacity mechanisms.

As noted above, the current environment for investment in renewable generation and storage is already complex and uncertain. For this reason, the case for regulatory reform must be carefully assessed and staged in terms of enhanced efficiencies, versus the disbenefits of increased regulatory complexity and uncertainty.

Any change to the regulatory frameworks must therefore be assessed in terms of how it will help or hinder the investment needed to deliver this transition. The effectiveness and efficiency of this investment process will be central to delivering a reliable supply of low cost, low carbon energy to customers.

The CEC considers the Reliability Panel's work in assessing the reliability standard and settings must form the first step of an overarching assessment of the NEM reliability frameworks. Put another way, the Panel must have sufficient time and resources made available to fully assess whether and how the existing market frameworks can be adapted to deliver ongoing reliability. This work must occur before the ESB moves on to consider the implementation of an entirely new capacity mechanism.

This means that the Panel must undertake detailed analysis to describe and quantify the reliability challenges it believes may emerge, and to explore how the existing frameworks might be adapted to address them. While previous papers from the ESB have provided a limited, qualitative discussion about risk appetites and supposed barriers to investment over the longer term, this has not been backed by any substantive evidence, or a description of the specific physical problems that may create reliability issues in the longer term.

The modelling undertaken by the Reliability Panel must include quantitative assessment of the magnitude of future reliability challenges, as well as a quantitative assessment of how various changes to the reliability standard and settings might be used to address them.

#### **Question 5: Impact of Government Policies on Reliability Settings**

In relation to the implications of the continued uncertainty on the reliability standard and settings, the CEC would request the Panel to ensure all uncertainties are considered in depth, and from a multitude of angles. From our perspective this includes extensive scenario analysis modelling a faster than expected coal closure and renewables entering the market – both occurring concurrently and in isolation.

We have seen in only the second month of the year the announcement that Origin Energy intend to close their Eraring Power Station in NSW by 2025. Additional 'earlier than expected' closures such as this must be considered well in advance in the Panels modelling.

The Panel must also consider the impacts of schemes such as the NSW Roadmap and associated REZ developments, and the implications of this for reliability both indirectly and directly. On the one hand, the Panel must consider how the MW volumes supported by the REZ schemes will enhance reliability outcomes, by increasing supply. On the other, the Panel will also need to turn its mind to the wholesale price implications of this inrush of supply. This must include consideration of the likely nature of the any LTESA agreements struck, particularly in terms of whether they are based around a wholesale price swap, or whether they are structured more around LGC offtake.

If you would like to discuss any of the issues raised in this submission, please contact Morgan Rossiter on [mrossiter@cleanenergycouncil.org.au](mailto:mrossiter@cleanenergycouncil.org.au).

Yours sincerely,

Christiaan Zuur  
Director Energy Transformation