17 July 2025

Reliability Panel
Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2000

Electronic Submission

2026 Reliability Standards and Settings Review

Snowy Hydro welcomes the opportunity to comment on the matters raised in the 2026 Reliability Standards and Settings Review (**2026 Review**).

The 2026 Review comes at a critical time. Commonwealth and State renewable energy and emissions targets can only be achieved with large increases in investment in new generation capacity. While investment has been occurring, it has not, to date, been on the scale and in the timeframes required.

In an energy only market such as the NEM, reliability settings are the most important policy influence on investment in new generation capacity. They create the conditions, and define the envelope for, scarcity pricing, which allows generators to recover their fixed and capital costs. This ultimately encourages investment in new capacity to meet future demand. In previous years, reliability settings were arguably too low, resulting in underinvestment, particularly in firming and storage.

This fact underlines the importance of the changes introduced in the 2022 Reliability Standards and Settings Review (**2022 Review**). The 2022 Review recommended a progressive adjustment in the Market Price Cap (**MPC**) to $21,500/MWh and the Cumulative Price Threshold (**CPT**) to $2,193,000 (corresponding to 8.5 hours of pricing at the MPC), in $2021 by the end of the review period (1 July 2027). This was the first such increase since 2010. Snowy Hydro strongly supported those recommendations, and was pleased when they were subsequently adopted by the Australian Energy Markets Commission (**AEMC**) as part of the 2022 Review.

These changes must be given time to take effect. It would be premature for these changes to be reversed or diminished before they are implemented. They are essential to improving revenue adequacy for investment in new generation capacity. For the reasons set out below, jurisdictional schemes, such as the Capacity Investment Scheme (**CIS**) are important complementary measures but do not justify a reversal of previously- announced changes to reliability settings.

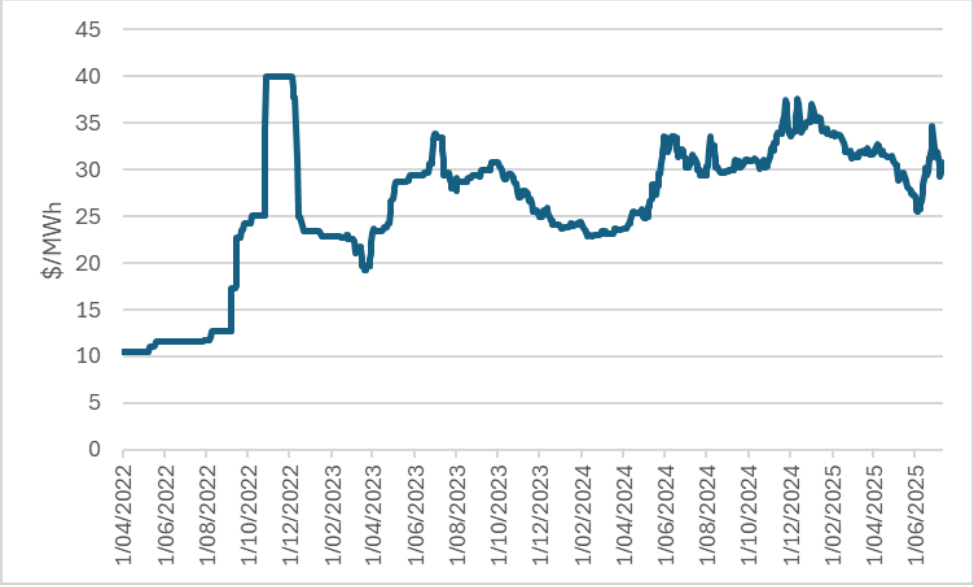
The Panel should consider the impact on the contracts market

It is important that the Panel does not assess changes to reliability settings only in terms of their impact on spot market revenues, or consider spot market impacts in isolation. In practice, participants seek to hedge their spot market exposure through forward contracts. While reliability settings are the most important policy influence on reliability, as an investment signal in the NEM they express themselves through the traded price of cap contracts (**caps**).

The efficacy of adjustments to the MPC and CPT will depend, to a large degree, on changes to the cap price. The caps market underpins investment in dispatchable assets. When the price of caps rise to the level of the new entrant price (**NEP**), or net cost of new entry, it signals that the market values capacity highly enough to incentivise investment in new firm generation capacity. The price of caps is also important because, as a forward contract obligation, or hedge, they provide the revenue certainty needed by generators to finance investment in new assets. Generally speaking, new generation capacity cannot be financed by relying only on spot revenues.

There has already been a general upward movement in cap prices since the conclusion of the 2022 Review (particularly the NSW cap strip, which currently trades at around $30/MWh - see Figure 1) and this will improve the investability of new generation capacity. It is important, therefore, for the Panel to assess the level of reliability settings in terms of their relationship with the price of caps and other forward energy contracts.

Figure 1: NSW FY26 Cap Strip Price



(Source: Snowy Hydro analysis based on ASX data)

Current reliability settings are largely appropriate

With the exception of the market floor price (**MFP**, discussed in detail below) Snowy Hydro is comfortable with the level of current settings, taking into account scheduled adjustments. The increases to the MPC will, for the reasons stated above, improve revenue adequacy and ultimately investment in firming and storage capacity. The current level of the Administered Price Cap (APC), $600/MWh, is now at a level sufficient to cover the marginal source of generation under most market conditions.

The Panel should carefully consider the optimal level of the CPT, which is set to become increasingly important as coal assets are replaced by more energy-constrained storage and firming technologies. Ideally, the CPT should be set at a level which encourages an optimal level of demand for and investment in long duration energy and firming assets, without creating unmanageable risk for generators.

In the past, the CPT was too low and this encouraged a type of freeriding by load-serving entities, who were incentivised to rely on the CPT to hedge their exposure to prolonged high prices. In its submission to the 2022 Review, analysis from Snowy Hydro highlighted that cap prices were effectively constrained by the implied hedge offered by the CPT, indicating that retailers were choosing to rely on the CPT, rather than purchase caps, to manage extended periods of volatility. However, Snowy Hydro considers that this issue has been largely addressed by the changes put in place following the 2022 Review, being both the increase to the CPT associated with the rise in the MPC, and the increase in the level of the CPT to 8.5 hours of MPC on 1 July 2027.

While further rises to the CPT may be warranted, an excessive increase would risk creating too much risk for fuel-limited generators, in terms of their ability to manage their contract obligations. Faced with such a risk, generators would reduce their volume of offered contracts, which would be an adverse outcome for the market. Any further increases to the CPT must be considered carefully with this risk in mind.

NEM Market Settings Review

As the Panel will be aware, the NEM Market Settings review is exploring options to support the NEM's energy only structure. It is critical that the Panel's analysis complements the work being undertaken by that review.

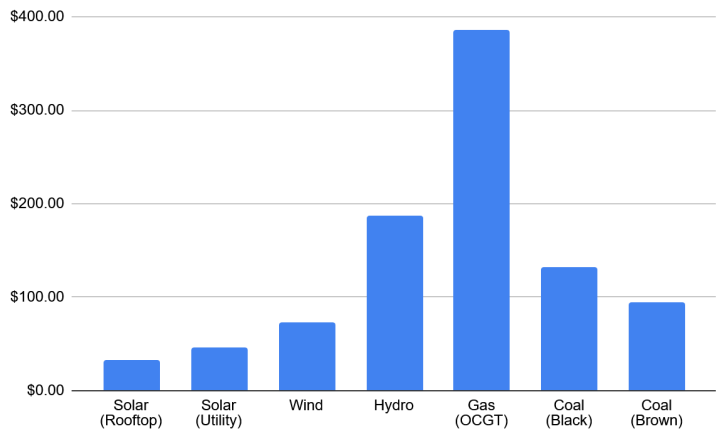
Nevertheless, Snowy Hydro considers that the NEM reliability settings will remain the most important policy influence on investment in new generation capacity. Reliability settings are enduring features of the NEM and therefore critical for supporting long term investment certainty. The existence of the NEM Market Settings review does not imply that the reliability settings are or will become any less important. In short, there is no case to reduce reliance

on reliability settings as a means to ensure system reliability on account of the NEM Market Settings Review.

The NEM's changing generation mix

The need to retain scheduled increases to reliability settings is highlighted by trends in NEM dispatch outcomes.

Figure 2: Average capture price by generation type ($/MWh), 12 months to 26 June 2025



(Snowy Hydro chart. Data sourced from Open Electricity, https://openelectricity.org.au/)

As can be seen from Figure 2, there is a widening of the capture prices achieved, on the one hand, by providers of variable renewable energy, and by firming and storage assets on the other. In other words, the market is placing a premium on the value of generation from dispatchable technologies. Firming and storage assets tend to have lower capacity factors and, in revenue terms, are much more sensitive to changes in the MPC. Given the need for these types of assets to replace legacy coal plant, it is important that the level of reliability settings, and in particular the MPC, are such that they incentivise investment in these assets.

The limits of reliability settings

While reliability settings are the key policy influence on system reliability, there are other factors which can limit their efficacy. While these may not be entirely within the purview of the Panel, they are nevertheless worth considering in the context of the 2026 Review.

Timing of coal plant exit

Coal assets remain the largest source of bulk energy and capacity (as measured by their ability to respond to prices above $300/MWh - $600/MWh) in the NEM. They will play an important role in underpinning reliability during the energy transition. However, the

uncertainty associated with the timing of coal plant retirement is having a negative impact on investment decisions in replacement capacity.

The size of each remaining coal asset is such that the exit of a single plant will have a large impact on pool price outcomes, at least in the short term. This was observed with the closure of the Hazelwood plant in 2017, when wholesale electricity prices in Victoria rose by 85%[1]. This is not in itself a problem, and is to some extent necessary, insofar as it creates the conditions and incentives for investment in replacement plant. However, as acknowledged in the Review, it is important that new capacity is delivered before coal assets retire. This will only occur if investors have confidence about the timing of coal exit.

While coal assets have announced closure dates, several have already been extended and there is widespread uncertainty as to whether coal assets will retire in line with current announcements. It is obvious to see the problem that this creates. Extending the lives of existing coal assets will depress cap prices (including expectations of cap prices), relative to what they would have been had the assets retired at their announced closure date. This reduces the incentive for investment in new assets, because investors, as well as buyers of caps, face the risk of overpaying if coal plants do not retire in line with their announced retirement dates. (This phenomenon is most visible in Victoria, where there is uncertainty surrounding the closure date of Yallourn power station and cap prices are well below NEP.) This in turn deprives revenue opportunities for investors in replacement assets, who will be less able to finance investments in replacement capacity.

It is a difficult problem to resolve because coal plant will continue to play an important role during the transition, and both governments and shareholders will naturally wish to retain flexibility as to the timing of coal exits. However, from a system perspective, more certainty is needed in order to support future investment. The Capacity Investment Scheme should play an important role in supporting investment decisions, but is unlikely, by itself, to be sufficient to address this issue. Although beyond the remit of the Reliability Panel, we encourage policymakers to consider options to improve certainty of the timing of coal retirement.

The Market Floor Price and access for dispatchable assets

A pending rule change from Snowy Hydro[2] highlights another issue influencing investment in firming and storage capacity associated with the current level of the MFP.

It is desirable for both buyers and sellers in the NEM to hedge their exposure to volatile spot outcomes through caps and other contract structures. However, generators will only be willing to offer caps to the extent they can defend their capacity exposures with a sufficiently

[1] AER, *State of the Energy Market*, 2018
[2] Snowy Hydro, *Addressing access risks for dispatchable resources* (currently a pending rule change, also known as the 'Dual Floor' rule change)

high degree of confidence. Generator risk limits restrict the selling of caps if they cannot be reliably defended.

The increase in wind and solar assets in the NEM, while itself a positive development, has reduced market access for firming and storage assets during high price events. Wind and solar assets have zero short run marginal cost and, depending on their location and transmission arrangements, may displace dispatchable assets in the bid stack. This arises because when generators are located behind a constraint, both scheduled and semi-scheduled assets are able to bid to the same MFP.

This creates a problem during high price events, when firming and storage assets are unable to be dispatched and are deprived of the opportunity to earn the spot revenues needed to meet the contract obligations. While all sources of generation, including wind and solar, will understandably want access to high price events, the risk of market access is acute for sellers of cap contracts (ie. firming and long-duration storage), because they depend on access to spot revenues to defend contract obligations, which is not the case for wind and solar.

Faced with such a risk, generators will reduce the volume of energy offered through contracts, and instead rely on spot market opportunities. This creates negative externalities, because reliance on the spot market is associated with greater market volatility and revenue uncertainty. The tradeable capacity of Snowy Hydro's Tumut power stations, for example, is already reduced by approximately 1,000MW during the evening peak and 1,800MW during solar peak, which can make it uneconomic to sell traditional flat caps (in periods during which transmission constraints are expected) that retailers rely on to manage price risk.

The consequences for the NEM will be profound if generators are unable to offer firm contracts. Underhedging will increase and investment in new capacity will decrease due to a lack of revenue certainty. It is important that Snow's rule change, which would create distinct MFPs for scheduled and semi-scheduled assets, is assessed in this light (that is, system reliability) and not not in the narrow context of bid stack efficiency, or 'race-to-the-floor bidding'.

Snowy Hydro's rule change proposal was submitted in December 2021 and has still yet to commence consultation. Given the seriousness of the issues it seeks to address, Snowy Hydro considers that it should be opened for consultation as soon as possible.

If Snowy Hydro's rule change proposal is not implemented, the MFP should be reduced.

If, for whatever reason, Snowy Hydro's rule change proposal is not adopted, Snowy Hydro proposes that as a second best alternative, the MFP be reduced from its current level of -$1,000/MWh to -$2,000/MWh. This would, to some extent, address the market access risks described above.

Reducing the MFP would enhance the ability of the owners of dispatchable assets, particularly peaking generators, to bid in a manner which reflects their very high economic cycling costs. Such generators sell caps, and therefore face very high costs (effectively, the MPC less the cap strike price - usually $300/MWh) of being constrained off. (Semi-scheduled assets, which do not underwrite cap contracts, do not face this risk).

While the current level of the MFP already facilitates bidding in this manner, the phenomenon of an increasing MPC, both as a result of indexation and adjustments in the 2022 Review, and a static MFP, has increased the relativity between the two settings and thereby increased economic cycling costs for owners of firming and storage. The rapid increase in wind and solar capacity has greatly increased the incidence of these costs, rendering the selling of caps increasingly risky.[3] At a minimum, the Panel should model this phenomenon, in order to assess the optimal level of MFP, and in doing so explicitly take account of these costs.

Snowy Hydro appreciates the opportunity to respond to the AEMC on this matter and would welcome the opportunity to discuss the matters raised above in more detail.

[3] Reducing the MFP would also have the additional benefit of helping generators who need to self-commit' for physical reasons, such as hydro plant with uncontrolled inflows and baseload plant with minimum loads.