

Australian Energy Market Commission

CONSULTATION PAPER

NATIONAL ELECTRICITY AMENDMENT (AMENDMENT OF THE MARKET PRICE CAP, CUMULATIVE PRICE THRESHOLD AND ADMINISTERED PRICE CAP) RULE

PROPONENT

Reliability Panel

11 MAY 2023

RULE

INQUIRIES

Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2000

E aemc@aemc.gov.au
T (02) 8296 7800

Reference: ERC0353

ABOUT THE AEMC

The AEMC reports to the Energy Ministers' Meeting (formerly the Council of Australian Governments Energy Council). We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the Energy Ministers' Meeting.

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1 SUMMARY

1 The National Electricity Market (NEM) will require a significant amount of new investment in generation, demand response, and network capacity to supply consumers with the energy that they demand as the incumbent thermal generation fleet progressively retires from service.

2 Key signals to support this investment come from, the market price settings, being the market price cap (MPC), cumulative price threshold (CPT) and administered price cap (APC). In addition to these market signals, there are currently a number of jurisdictional schemes that operate outside the market, that also provide additional support to new investments.

3 The Reliability Panel (Panel) is tasked with reviewing and recommending the market price settings every four years, with any recommended changes then being considered by the Australian Energy Market Commission (AEMC) in a rule change.

4 On 16 November 2022, the Panel submitted a rule change request to amend the market price settings to the levels recommended in its 2022 Reliability Standard and Settings Review (RSS Review) to apply between 1 July 2025 to 30 June 2028 (the review period).

5 The AEMC has commenced its consideration of the Panel's request, and this consultation paper is the first stage of the rule change process.

The Reliability Panel has submitted a rule change request to amend the market price settings

6 The Panel's rule change request recommends a material increase in the MPC, CPT, and APC over the review period. It recommended this increase to ensure the long-term interests of consumers are served. Specifically, the Panel identified:

- the current MPC and CPT are too low to support the investment needed to achieve the reliability standard over the long term
- the APC at \$300/MWh was too low for a significant part of the thermal generator fleet to recover its variable costs under high gas and other fuel price conditions.

The Panel has recommended the following changes to the MPC, CPT, and APC.

Table 1: Recommended progressive annual changes to MPC, CPT, and APC

| 2021 DOLLARS | CURRENT LEVEL | 1 JULY 2025 | 1 JULY 2026 | 1 JULY 2027 |
|---------------------|---------------|--------------|--------------|--------------|
| MPC | \$15,100/MWh | \$17,500/MWh | \$19,500/MWh | \$21,500/MWh |
| CPT | \$1,359,100 | \$1,575,000 | \$1,872,000 | \$2,193,000 |
| MPC in hours at CPT | 7.5 | 7.5 | 8 | 8.5 |
| APC | \$600/MWh | \$500/MWh | | |

Note: These figures are in 2021 dollars. The MPC and CPT that apply in a particular year are indexed by inflation.

Note: The current level MPC and CPT are in 2021 dollars. The nominal level of the market price settings applying to the financial year 2023-4 is MPC of \$15,500/MWh, and CPT of \$1,398,100.

Note: The Commission's amending the administered price cap rule change increased the level of the APC to \$600/MWh to apply until 30 June 2025.

Note: The formal units for the CPT are in \$/MWh. The table is expressed in dollars consistent with its practical application as a threshold value.

7

In making its recommendation on the MPC and CPT, the Panel:

- minimised the extent of change in this review period by basing the required MPC and CPT on the lowest cost marginal new entrant required to achieve reliable outcomes in NSW. This is because NSW was the first region to experience reliability issues in the Panel's modelling.
- recommended a progressive transition over the review period to maximise scope for the market to adjust.
- sought to incrementally improve support for storage investments; and
- considered its recommendation will support contract markets, by increasing the incentive for market participants to hedge risks through contracting, and not lead to unacceptable levels of systemic financial risk.

8

The Panel's approach to increasing the MPC and CPT minimises the extent of change in this review period and provides a gradual transition to the minimum levels necessary to support investment in NSW by the end of the review period. The Panel considered its recommendation may represent a first step in a longer-term transition to levels necessary to support a full mix of new entrant technologies in each NEM region. The Panel considered this support could be provided by higher market price settings or via complementary market or jurisdictional measures.

9

The Panel considered it necessary to increase the APC to reduce undue reliance on the compensation regime during an administered price period (APP) under high fuel cost conditions. The Panel's recommendation was informed by the June 2022 APP/market suspension event and it considered its change will reduce the pass-through of costs to consumers from un-hedgeable compensation payments that may follow an APP.¹

10

The Panel was mindful of the consumer cost impacts its recommendations may have and sought to limit increases while also encouraging necessary investment. The Panel's modelling

¹ The Amending the administered price cap rule change increased the APC to \$600/MWh which will apply prior to 1 July 2025. This change occurred following the Panel's final report, and will be considered alongside the Panel's recommendation.

indicated a total consumer bill increase of 3% in the final year of the review period, incurred progressively over the review period, relative to outcomes under the existing settings. Consumer bill impacts will be a critical issue for the Commission to consider in this rule change.

The decision-making framework the Commission intends to apply

- 11 Considering the national electricity objective (NEO) and the issues raised in the rule change request, the Commission proposes to assess the rule change request against the following five assessment criteria with respect to whether the proposal:
- will enable the reliable provision of energy at an efficient cost
 - appropriately represents the balance between cost and reliability
 - is consistent with the principles of market efficiency
 - is consistent with the principles of good regulatory practice, and
 - will efficiently enable the timely decarbonisation of the energy market.
- 12 The Commission will also consider:
- if the consumer price impact of a higher MPC and CPT warrants the benefit associated with a reduction in expected future levels of unserved energy. The Commission will consider the counterfactual of outcomes under existing arrangements in determining these benefits
 - whether a new emissions-related objective in the national electricity rules (NER), expected prior to the final determination on this rule change, requires a more preferable rule given the Panel was guided by the existing NEO.
 - the interaction with federal and jurisdictional reliability schemes, the market price settings, and other complementary measures in supporting reliability as the power system transitions.
 - the practical effectiveness of a higher MPC and CPT in supporting new investment through its impact on contract prices, and
 - what additional analysis is required for the Commission to be satisfied that its final rule promotes the NEO.
- 13 While the Panel requested the rule change be fast-tracked, the Commission has elected to progress a standard rule change process. The Commission considers the materiality of the changes and complexity of reliability policy requires a more extensive stakeholder engagement only available through the full rule change process.
- ### **We value your input and are seeking your feedback**
- 14 We are seeking your feedback on the contents of this paper and questions posed inside, including on:
- the Panel’s proposals to change the market price settings,
 - consideration of costs and benefits, and
 - the Commission’s decision-making approach.

- 15 Written submissions on the review must be lodged with Commission by **22 June 2023** online via the Commission’s website, www.aemc.gov.au, using the “lodge a submission” function and selecting the project reference code ERC0353.
- 16 All enquiries on this project should be addressed to Graham Mills at graham.mills@aemc.gov.au.

1 INTRODUCTION

The Australian Energy Market Commission (AEMC or Commission) has commenced a rule change process to consider a request made by the Reliability Panel (Panel) to amend the Market Price Cap (MPC), Cumulative Price Threshold (CPT), and Administered Price Cap (APC) in the National Electricity Market (NEM).

This chapter summarises:

- The rule change request.
- The context of the rule change request.
- The origin of this requested change, being the 2022 Reliability Standard and Settings Review (RSS Review).

1.1 The Reliability Panel has proposed the Rules be changed to amend the market price settings

On 16 November 2022, the AEMC received a rule change request from the Panel to amend the NER clauses that address the MPC, the CPT, and the APC, collectively known as the market price settings.² While the Panel reviews the market price settings and recommends changes to the AEMC, the Panel is not able to amend the NER.

The Panel has submitted a rule change request to the AEMC for progressive annual adjustments to the MPC and CPT to \$21,500/MWh and \$2,193,000 (in 2021 dollars) over the period 1 July 2025 to 30 June 2028. The proposed schedule of adjustments is set out in Table 1.1 below.

When making its recommendation, the Panel was guided by the NER requirements,³ terms of reference,⁴ and guidelines applying to its RSS review recommendations.⁵

2 The AEMC notes that the Market Floor Price (MFP) is also part of the market price settings. The Panel did not propose any changes to the MFP, and therefore it is not part of the Panel's rule change request.

3 Clause 3.9.3A of the NER.

4 <https://www.aemc.gov.au/market-reviews-advice/2022-reliability-standard-and-settings-review>

5 Ibid.

Table 1.1: Recommended progressive annual changes to MPC, CPT, and APC

| 2021 DOLLARS | CURRENT LEVEL* | 1 JULY 2025 | 1 JULY 2026 | 1 JULY 2027 |
|---------------------|----------------|--------------|--------------|--------------|
| MPC | \$15,100/MWh | \$17,500/MWh | \$19,500/MWh | \$21,500/MWh |
| CPT | \$1,359,100 | \$1,575,000 | \$1,872,000 | \$2,193,000 |
| CPT in hours at MPC | 7.5 | 7.5 | 8 | 8.5 |
| APC* | \$600/MWh | \$500/MWh | | |

Source: Reliability Panel

Note: These figures are in 2021 dollars and the MPC and CPT that apply in a particular year are indexed by inflation.

Note: The current level MPC and CPT in the table are expressed in 2021 dollars. The nominal level of the market price settings applying to financial year 2023-4 is an MPC of \$15,500/MWh, and CPT of \$1,398,100.

Note: The Commission's amending the administered price cap rule change increased the level of the APC to \$600/MWh to apply until 30 June 2025.

The Panel requested the rule change be fast-tracked as it considered that the rule change request meets the requirements for a fast-tracked rule change, given that the Panel:⁶

- is an electricity market regulatory body under section 87 of the NEL, and
- undertook the 2022 RSS Review in accordance with the rules consultation procedures under rule clause 8.9 of the NER.

The Commission considered the Panel's request for a fast-track process but has elected to use the standard rule change process, which includes publication and feedback on a consultation paper. The Commission's rationale for this decision is set out in section 3.4.

1.2 The context for this rule change request

This rule change occurs in the context of a period of physical and regulatory transition in the NEM, and an environment with significant cost-of-living pressures. This section summarises key issues in the context of this rule change.⁷

Long-term reliability in the NEM relies on there being ongoing signals for new investment to replace the energy delivered by retiring generators and to account for load growth within the operating requirements of the NEM. The market price settings define the boundaries for wholesale market prices that provide those investment signals.⁸

To illustrate the scale of the change, 7,650 MW of dispatchable capacity is expected to retire by 2030 with an additional 15,065 MW retiring by 2040.⁹

The market price settings will need to be set at a level that provides sufficient long-term incentives for the right mix of generation in the right NEM regions to maintain reliability consistent with the NEM's reliability standard during this transition. The majority of this

6 Section 96A of the NEL defines the relevant requirements for a rule change to be fast-tracked.

7 Further details on how the Panel considered this context in its recommendations is provided in Chapter 2, with the Commission's considerations on these issues discussed in Chapter 4.

8 An introduction to the market price settings and NEM reliability framework can be found in Appendix A.

9 Reliability Panel, 2022 Annual Market Performance Review.

investment will be in zero-emission generation, but dispatchable firming resources will also be required.

The NEM's reliability policy environment is changing with the implementation of jurisdictional reliability schemes

The NEM reliability framework is designed so that the market price settings provide sufficient incentives for investment in new generation. Recently, some jurisdictional investment schemes have been providing additional support to encourage new investments in the market to meet regional renewable generation and reliability objectives. Generally, jurisdictional schemes provide some revenue certainty to support new investments, particularly with respect to renewable energy projects.¹⁰

The Commonwealth government is also designing a Capacity Investment Scheme (CIS).¹¹ The CIS is a federally funded revenue underwriting scheme to support the entry of zero emissions dispatchable generation and storage technologies in all jurisdictions.¹²

Given these schemes are additional measures to support reliability (in addition to emissions reduction), the Commission will consider how these schemes and the market price settings interact and the implications for the proposed changes to the settings. Further discussion on the Commission's consideration of jurisdictional investment schemes is provided in Chapter 4.

This rule change is being assessed during a period of cost-of-living pressures

High energy costs are contributing to cost of living pressures for many Australian consumers and businesses. While lower market price settings may lead to lower electricity bills in the short term, without investment in new generation capacity and in the absence of other interventions, consumers will experience lower reliability and bear costs from higher medium and longer-term levels of unserved energy.

While the Panel sought to minimise cost impacts, its recommended market price settings for the review period (1 July 2025 and 30 June 2028), are expected to have an impact on wholesale market price outcomes and consumer electricity bills. Further discussion on consumer cost impacts is provided in Chapter 2.

1.3 Recommendations stem from the 2022 RSS Review

This rule change request was submitted by the Panel following the completion of its 2022 RSS Review, published on 1 September 2022.¹³

The NER requires the Panel to conduct the RSS Review every four years in accordance with AEMC issued terms of reference.¹⁴ In conducting the RSS Review, the Panel considers whether the reliability standard and settings remain suitable for expected and evolving

¹⁰ A full list of relevant jurisdictional schemes is provided in Appendix A.

¹¹ For more information see: <https://minister.dcceew.gov.au/bowen/media-releases/capacity-investment-scheme-power-australian-energy-market-transformation>

¹² The CIS design process has yet to be finalised. Further information is available at: <https://www.energy.gov.au/news-media/news/capacity-investment-scheme-power-australian-energy-market-transformation>

¹³ The report can be found [here](#) on the AEMC website.

¹⁴ Clause 3.9.3A of the NER.

market conditions for a period four years ahead. The Panel then recommends appropriate changes if required.¹⁵

The Panel's recommendations were supported by detailed modelling and stakeholders may refer to the Panel's final report for details on the modelling and the rationale behind the recommendations.¹⁶

The Panel also undertook extensive stakeholder engagement and invited feedback on its process and recommendations in the review's Issues Paper (27 January 2022) and Draft Report (9 June 2022) and public stakeholder forum (31 March 2022).

1.4 We have started the rule change process

This paper is the first stage of our consultation process.

A standard rule change request includes the following formal stages:

- a proponent submits a rule change request
- the Commission commences the rule change process by publishing a consultation paper and seeking stakeholder feedback
- stakeholders lodge submissions on the consultation paper and engage through other channels to make their views known to the AEMC project team
- the Commission publishes a draft determination and draft rule
- stakeholders lodge submissions on the draft determination and engage through other channels to make their views known to the AEMC project team
- the Commission publishes a final determination and final rule.

To make a decision on this proposal, we seek stakeholder feedback on how we propose to assess the request, the stated problem and the proposed solutions. Questions for stakeholder feedback are posed in relevant sections.

1.5 Making a submission

Written submissions on the review must be lodged with Commission by **22 June 2023** online via the Commission's website, www.aemc.gov.au, using the "lodge a submission" function and selecting the project reference code ERC0353.

Where practicable, submissions should be prepared in accordance with the Commission's guidelines for making written submissions on reviews.¹⁷ The Commission publishes all submissions on its website, subject to a claim of confidentiality.

All enquiries on this project should be addressed to Graham Mills at graham.mills@aemc.gov.au.

¹⁵ Ibid.

¹⁶ Details of the Panel's modelling can be found [here](#)

¹⁷ This guideline is available from www.aemc.gov.au

2 THE PROBLEM RAISED IN THE RULE CHANGE REQUEST AND THE PROPOSED SOLUTION

This chapter sets out the issues raised by the Panel in respect of the current MPC, CPT, and APC along with the Panel's recommended changes and supporting rationale.

2.1 The level of the MPC and CPT

The Panel recommended the MPC and CPT be increased progressively to a level consistent with an investment in the lowest cost marginal new entrant in NSW by the final year of the review period. Details of the Panel's recommendation is provided in Table 1.1.

The following sections describe the issues with current arrangements the Panel has identified and provide an overview of the rationale behind the Panel's recommendations.¹⁸

2.1.1 The Panel identified that the current level of the MPC and CPT is insufficient to support investment

The Panel has recommended a material increase in the MPC and CPT over the review period as it did not consider the long-term interests of consumers to be served by retaining existing market price settings over the period 1 July 2025 to 30 June 2028.

Informed by modelling commissioned for the RSS Review,¹⁹ the Panel considered that retaining the existing MPC and CPT for the review period would:²⁰

- not support the investment needed to achieve the reliability standard in the longer term, particularly given the degree of thermal generation retirement expected following the review period.
- not provide sufficient revenue to support any marginal new entrant technology in NSW or Victoria. These regions were identified by the Panel's modelling as the two NEM regions with reliability outcomes closest to the level of the standard during the review period.

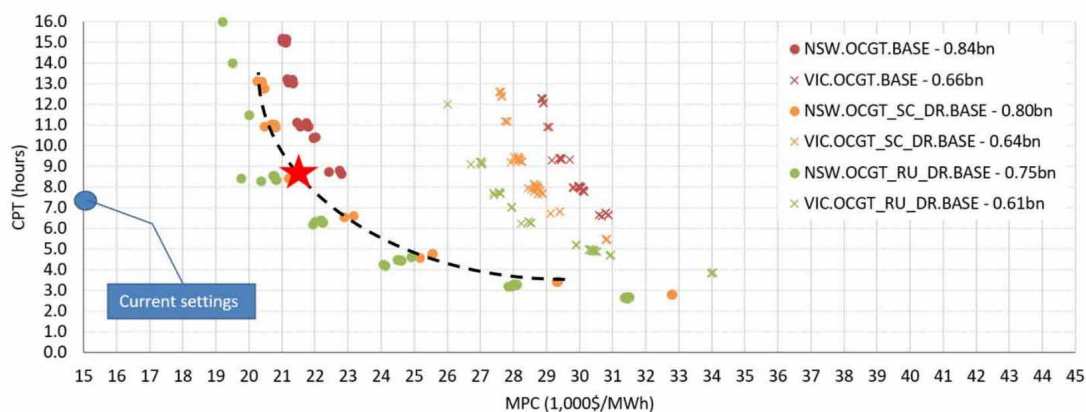
The extent to which the current MPC and CPT are below the efficient level is shown in Figure 2.1. The individual dots and crosses indicate the set of candidate MPC and CPT combinations that are sufficient to support a marginal new entrant in NSW and Victoria respectively for different levels of new entry demand response uptake. The blue circle indicates the current level of the MPC and CPT and the red star shows the proposed new levels at the end of the review period. The dashed line represents the efficient frontier of MPC and CPT combinations associated with the Panel's use of AEMO's ISP step change scenario new entry demand response uptake.

¹⁸ More details about the Panel's recommendation is available in the RSS Review final report which can be found at: <https://www.aemc.gov.au/market-reviews-advice/2022-reliability-standard-and-settings-review>.

¹⁹ Details of the modelling can be found in the RSS Review final report and accompanying IES modelling report both of which can be found on the RSS Review project page: <https://www.aemc.gov.au/market-reviews-advice/2022-reliability-standard-and-settings-review>

²⁰ The existing MPC is \$15,500/MWh and CPT is \$1,490,200. Stakeholders should note the MPC and CPT are annually indexed by inflation.

Figure 2.1: Gap between the existing MPC/CPT and the Panel’s recommendation



Source: Reliability Panel

Note: The red, orange, and green dots and crosses indicate the effect of different levels of demand response uptake on the required MPC and CPT. The Panel’s recommendation assumed a level of demand response uptake consistent with the ISP step change scenario.

2.1.2

The Panel recommended an increase in the level of the MPC and CPT

The Panel recommended increasing the MPC and CPT to align with the level required to support investment consistent with the reliability standard. The Panel’s recommendations reflect the following approach and rationale.

Minimising change over the review period while supporting reliability.

The Panel’s recommendations aim to minimise the extent of change to the MPC and CPT in this review period. Minimising the extent of change will provide stable market conditions and also minimise consumer costs and possible systemic risks (as discussed further in following sections).

The Panel achieved this by:

- Recommending an MPC and CPT which are sufficient to support investment in open cycle gas turbines (OCGT) as the lowest cost marginal new entrant option in NSW. This was because NSW was the first region to experience reliability issues in the Panel’s modelling.
- Including the potential for demand response (DR) to lower the required MPC and CPT. New entrant DR reduces the investment required to address a reliability gap and can therefore reduce the required MPC from what it would have otherwise been.²¹

The Panel identified that additional MPC and CPT increases may be required in future review periods as its final recommendation for this review period is sufficient to support marginal new entry in NSW only. The Panel suggested its recommendation for this review period could represent a first step in a longer-term multi-review period adjustment to levels sufficient to support a mix of new entrant technologies in each region of the NEM.

²¹ The Panels recommendation incorporated DR volumes and costs consistent with AEMO’s ISP step-change scenario.

Providing a gradual transition to levels required to support outcomes consistent with the reliability standard.

The Panel considered an increase in the MPC and CPT should occur in known increments over the review period. It considered this would provide industry with predictable and certain market settings, and would strengthen investment signals while minimising costs to consumers.

The Panel elected a progressive transition as its modelling did not indicate any breaches of the Standard in the review period. This situation provided the Panel with scope to gradually increase the MPC and CPT to reach the level required prior to thermal generation retirements expected after 2028 while still being consistent with reliability outcomes in line with the Standard.

Incentives for storage investment are incrementally improved.

The Panel's recommendation enhances incentives for storage investment for reliability purposes.

- The recommended MPC and CPT narrows, but does not completely close the energy market revenue gap required to support two and four hour battery investments.
- An increase in the CPT will also marginally improve the investment case for longer-duration storage by providing additional revenue from higher 7 day average prices before the CPT is breached.

While the Panel's recommended MPC and CPT are insufficient to fully support marginal new entrant storage investments on their own, the Panel's final recommendation, combined with support likely available from other sources, was considered to provide for ongoing storage investments in the NEM. These additional sources of support include FCAS revenues that may be higher than those assumed in the Panel's modelling,²² and revenue support from jurisdictional schemes.

Systemic risk is minimised and contract market outcomes are supported

The Panel recognises that increasing the MPC and CPT will potentially increase wholesale price volatility and therefore potentially increase the financial risk faced by market participants. However, the recommendation will also increase incentives for market participants to manage risk by contracting or self-generation. The Panel's modelling indicated its recommendation would see contract market prices, for caps, increasing to levels necessary to support new entrant investment.

The Panel considered its recommendation avoids an excessive increase in systemic financial risk and maintains the overall integrity of the market despite higher levels of financial risk given the recommended MPC and CPT.

²² Review modelling assumed historic FCAS revenues de-rated to account for an anticipated reduction in FCAS market prices and revenues from historically high recent levels. FCAS revenues are based on estimated FCAS revenues of \$30,000/MW/year in 2022 reduced at 5% per annum. This is a conservative assumption that may significantly underestimate actual FCAS revenues.

The NER requires the Panel to make a recommendation that does not create financial risks which threaten the overall integrity of the market.²³ This requirement relates to the financial stability of the market as a whole and arises when there is financial contagion where one participant failure causes a cascading failure of multiple participants.²⁴ In such circumstances, the integrity of the market may be compromised as the financial relationships that support the efficient operation of the NEM break down.

The Panel considered its final recommendation manages and minimises the potential for systemic financial risk by:

- limiting the increase in financial risk to the lowest level consistent with maintaining reliability. The Panel achieved this by basing its recommendation on the lowest cost marginal new entrant option (as discussed above)
- limiting the increase in the CPT to levels that prevent unmanageable industry-wide financial losses during adverse conditions.
- maximising the scope for market participants to adjust to higher levels of financial risk by providing a progressive increase over the review period.

2.1.3

The Panel noted that there are costs associated with its recommended MPC and CPT

The Panel considered the impact on customer electricity bills from the recommended increase in the MPC and CPT. The Panel recognised the pressure recent electricity cost increases have placed on customers and sought to limit end-user bill impacts as much as possible while still supporting reliability.

The Panel's modelling indicated the cost impacts of its final recommendation, when passed through to end users in their bills, represented an increase of approximately 3% in real terms in the final year of the review period.²⁵ This increase will be progressively incurred over the three years of the review period.

The Panel's modelling estimated the impact of its recommendation on consumer bills by identifying the increase in wholesale settlement and hedging costs for a representative retailer relative to existing arrangements. The increase in wholesale settlement costs was established from the Panel's NEM price dispatch modelling.²⁶ The increase in hedging costs was assessed by identifying optimal hedging strategies for a risk-averse retailer which seeks to minimise risk at the lowest cost.²⁷ The other consumer electricity bill elements, including network costs, were obtained from the AEMC's most recent price trends report.²⁸

²³ Clause 3.9.3A(f)(2) of the NER.

²⁴ The financial interdependencies between market participants mean that the financial position of one market participant can impact other market participants. One participant experiencing some form of financial distress can affect others. If this becomes extreme, it is referred to as financial contagion.

²⁵ Network and other bill final bill components are included in this impact assessment.

²⁶ The representative retailer was assumed to settle against a NSW regional load shape.

²⁷ Modelling identified the lowest cost hedging strategy for different levels of risk where risk is taken to be the standard deviation of outcomes around expected wholesale market settlement costs.

²⁸ AEMC, 2021 retail price trends report, 25 November 2021, https://www.aemc.gov.au/sites/default/files/2021-11/2021_residential_electricity_price_trends_report.pdf

Full details on IES's modelling approach can be found in Section 11.3 of its RSS Review modelling report.

The Panel noted that recent electricity cost increases are largely due to increases in average market prices from elevated international fuel costs due to the Ukraine war rather than peak market prices which would be influenced by the level of the MPC and CPT. These costs are not included in the estimated 3% increase noted by the Panel.

QUESTION 1: QUESTIONS ON THE MPC AND CPT

Do stakeholders:

- agree that existing MPC and CPT are too low to support marginal new entrant investment in the NEM?
- have any feedback on Panel's recommended MPC and CPT? Do its recommendations effectively address the identified issues?
- agree with the rationale behind the Panel's recommendation including to:
 - limit the extent of change in the review period given that the Panel's modelling indicated further increases may be necessary in future review periods
 - provide a progressive transition over the review period
 - incrementally enhance incentives for storage investments, and
 - support contract market outcomes and minimise systemic risk.
- Do stakeholders have any feedback on the costs identified by the Panel?
- Do the benefits of the proposed changes warrant the costs to consumers?
- Are there any other considerations on the Panel's recommendation on the MPC and CPT the Commission should consider in its rule change assessment?

2.2

The level of the APC

The Panel recommended increasing the APC from \$300/MWh to \$500/MWh for the period 1 July 2025 to 30 June 2028. In December 2022 the Commission amended the APC to \$600/MWh for the period until 30 June 2025 in its Amending the administered price cap rule change (APC rule change).²⁹

The following sections describe the issues with current arrangements identified by the Panel, in its RSS Review and the Commission in its APC rule change as well as the proposed solutions.

²⁹ The AEMC conducted further analysis that built on the Panel's work in considering the APC rule change. A key area of further analysis was to more thoroughly assess the amount of thermal capacity that would be covered by different levels of the APC. Further information on the analysis performed for APC rule change can be found at: <https://www.aemc.gov.au/rule-changes/amending-administered-price-cap>

The Panel's recommendation and Commission's APC rule change decision are presented together as the Commission intends to take both as inputs to its decision on the APC to apply over the review period.

2.2.1 The current level of the APC leads to undue reliance on compensation arrangements under high fuel price conditions

The Panel and the Commission both:

- identified that the existing \$300/MWh APC was below variable costs for a significant portion of the thermal generation fleet under high gas and other fuel price conditions. They both considered that this would lead to undue reliance on compensation mechanisms which would increase uncertainty for consumers and retailers associated with the pass-through of these compensation costs.
- considered the level of the APC was a key factor in the suspension of the market in June 2022. Although there were other issues impacting security and reliability during that period, it was evident that the existing level of the APC needs to be improved to achieve its intended purposes.³⁰

The \$600/MWh APC, implemented in the Commission's APC rule change, is a temporary arrangement which lapses on 30 June 2025. The APC will revert to \$300/MWh for the review period unless the Commission makes a rule for a different level. The Commission is not intending to consult on retaining \$300/MWh given the RSS Review and APC rule change both considered the existing APC level to be inappropriate. The Commission, therefore, intends to focus consultation on the relative merits of a \$500/MWh or \$600/MWh APC to apply over the review period.

2.2.2 The Panel and Commission both considered an increase in the level of the APC is necessary

The Panel considered the amount of thermal generation that would require compensation during high-price conditions when making its recommendation on the level of the APC.

The Panel recommended an APC of \$500/MWh as it reduces reliance on the compensation to about 20% (at gas prices of \$40/GJ) of the de-rated thermal generation fleet. This corresponds to 5 GW of de-rated thermal capacity that would require compensation during high fuel cost periods.³¹ The Panel considered this value would not lead to an undue reliance on compensation in high fuel price situations, similar to those that applied in June 2022.

The Panel worked to balance the extent of change with the need for the market to function normally during an APP. The Panel noted that the development of the LNG export industry had led to a stronger link to international prices but considered the probability of high fuel cost conditions similar to those experiences in June 2022 remains low.

³⁰ The APC aims to remove the financial risk associated with the MPC while retaining sufficient financial incentive for generators to continue to make themselves available during an APP. An introduction to the APC and its purpose is provided in Appendix A.

³¹ The capacity which requires compensation was assessed on a de-rated basis which excludes from the total all the capacity that was unavailable during the period 1 June 2022 to 14 June 2022. This assessment is intended to reflect the NEM during a period of reliability stress similar to that in July 2022.

When making the APC rule change, the Commission also concluded that an APC of \$600/MWh would give the market more headroom to cover high fuel costs and to self-ration its limited energy supply. This will enable thermal generation, hydro and battery storage to operate in the market when it is needed most.

The Panel and the Commission both considered their recommendations would:

- make the NEM more robust to possible future high fuel price periods reducing the need for AEMO intervention and possible future market suspension.³²
- prevent undue reliance on compensation processes. In light of the recent APP where 23 registered participants submitted claims, the need for future compensation claims would be limited to a small number of very high-cost generators during an APP.³³
- improve incentives for storage to participate during an APP.
- enable better management of APP-related consumer costs by reducing unhedgable compensation costs that are passed through to consumers.³⁴

2.2.3

The Panel and Commission both identified costs associated with their recommended APCs

The Panel was mindful of the cost impacts of its recommended increase in the APC.

The key cost identified by the Panel was the additional burden on retailers and consumers during an administered price period associated with compensation cost management and pass-through.

In addition, the Commission also identified that, in a security and reliability sense, consumers are at less risk of being exposed to load shedding with a higher APC due to more generation being available in the market during an APP. Increasing the APC should therefore reduce consumer costs associated with the risk of unplanned load shedding for consumers.

The Panel and Commission, therefore, both considered the costs to consumers and retailers of increasing the APC were lower than the costs of placing undue reliance on compensation processes during administered pricing periods.

2.2.4

Other considerations in the level of the APC

Inflation and the level of the APC

The Panel's recommended APC of \$500/MWh is not indexed to CPI like the MPC and CPT. Therefore, the value of the APC in real terms declines over time due to inflation.

An observation from the APC rule change was that had the APC been indexed it would have been close to \$600/MWh during the June 2022 events. The Commission considered that given the current high levels of inflation, it was appropriate to consider how the APC may be

32 While the high fuel costs in the recent administered price period (APP) were not considered typical, the Panel considers that they may be less rare in the future

33 For a full range of information on the administered pricing compensation process, please see the AEMC website: <https://www.aemc.gov.au/our-work/apc-claims>

34 A higher APC allows a greater proportion of APP-related costs to be internalised in normal market activity without compensation and provides a higher degree of confidence and predictability in APP-related costs. Unlike spot prices, retailers cannot hedge compensation associated with an APP – that is, the conventional risk instruments of caps and swaps do not protect retailers against the pass-through of compensation costs.

set to account for inflationary pressures and whether inflation requires a higher nominal APC in this review period.

The Commission is not intending to consider implementing indexation arrangements for the APC in this rule change as the Panel is currently considering whether the APC should be indexed to CPI in its review of the form of the standard and APC. Further information on this review and its scope can be found at: <https://www.aemc.gov.au/market-reviews-advice/review-form-reliability-standard-and-apc>

Predictability and stability benefits of retaining \$600/MWh for the review period

The Commission intends to consider whether changing the level of the APC from \$600/MWh to \$500/MWh on 1 July 2025 would be consistent with the principles of good regulatory practice in the absence of a compelling reason for change. In particular, whether such a change would promote predictability and stability in the regulatory framework for stakeholders. The Commission notes the implications of such a reduction on contract markets and will consider the stability benefits of retaining \$600/MWh in its determination.

QUESTION 2: QUESTIONS ON THE LEVEL OF THE APC

- Do stakeholders have any feedback on applying either the Panel's recommendation for an APC of \$500/MWh or Commission's APC rule change for an APC of \$600/MWh over the review period? Are there any specific market impacts or considerations the Commission should be aware of?
- Do stakeholders have any feedback on the costs identified by the Panel and Commission?
- Should the level of the APC reflect expected future inflation, noting the Commission is not intending to introduce indexation arrangements?
- Are there any other considerations on the Panel's recommended APC the Commission should consider in its rule change assessment?

3 MAKING OUR DECISION

The Commission as the statutory decision-maker must satisfy itself that the final rule promotes the National Electricity Objective (NEO).

This chapter presents the Commission's initial approach to assessing the rule change request against the NEO and the assessment framework it intends to apply.

3.1 Commission must act in the long-term interests of consumers.

The Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO). This is the decision-making framework that the Commission must apply.

The NEO is:

To promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to: (a) price, quality, safety, reliability and security of supply of electricity; and (b) the reliability, safety and security of the national electricity system.

As discussed in the AEMC's guide to 'applying the energy market objectives', the NEO is an economic concept and is intended to promote efficiency in the long-term interests of consumers, which depends on the consideration of a specific set of variables, namely; the price, quality, safety, reliability and security of supply.³⁵

The AEMC must consider the relevance of each variable to the rule change request or review on hand. The Commission considers the issues in this rule change primarily relate to efficient operations and investment in the long-term interests of consumers in relation to price and the reliability of the supply of electricity.

3.2 We have three options when making our decision

After using the assessment framework to consider the rule change request, the Commission may decide:

- to make the rule as proposed by the proponent
- to make a rule that is different to the proposed rule (a more preferable rule), as discussed below, or
- not to make a rule.

The Commission may make a more preferable rule (which may be materially different to the proposed rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule is likely to better contribute to the achievement of the NEO.

35 https://www.aemc.gov.au/sites/default/files/2019-07/Applying%20the%20energy%20market%20objectives_4.pdf

3.3 We propose to assess the rule change using these five criteria.

To determine whether the proposed rule change would likely promote the NEO, the Commission will assess the rule change request against an assessment framework.

The framework may be refined during the rule change process. The Commission is seeking stakeholder views on its proposed assessment framework, which includes the following criteria:

- **Reliability:** The Commission will assess whether this proposal will enable the reliable provision of energy to consumers at efficient cost over the long term.
- **Outcomes for consumers:** The Commission will assess whether this proposal will appropriately balance the costs and benefits for consumers, particularly looking at the benefits of achieving reliability outcomes compared to the costs of increasing the reliability settings.
- **Principles of market efficiency:** The Commission will consider two factors:
 - Whether this proposal will promote allocative and dynamic efficiency, particularly across the investment and planning time frame. A key element of this is whether increasing the market price settings is likely to deliver the required investment.
 - Whether this proposal will promote efficient outcomes through competition by providing incentives rather than directions and obligations.
- **Principles of good regulatory practice:** The Commission will consider three factors:
 - Whether this proposal will promote predictability and stability in the regulatory framework for stakeholders.
 - Whether this proposal will interact constructively with other reforms underway.
 - Whether the proposal appropriately balances systemic final risk and market efficiency considerations
- **Emissions Reduction:** The Commission will consider whether this proposal will efficiently enable the timely emissions reduction of the energy market.

In determining whether to make the Panel's rule or a more preferable rule, the Commission particularly intends to:

- consider if the benefit associated with a reduction in expected future levels of unserved energy justifies the consumer price impact of a higher MPC and CPT. The Commission will consider the counterfactual of outcomes under existing arrangements in determining these benefits
- consider the role of jurisdictional scheme revenue support in assessing whether the additional consumer costs are justified, and
- investigate the practical effectiveness of a higher MPC and CPT in supporting new investment decision making through its impact on contract prices.

3.4 Commission will undertake a full rule change process

The Panel requested the Commission consider the rule change request using the fast-track process.³⁶ The fast-track process involves the Commission proceeding directly to publishing a draft determination without initial consultation in a consultation paper.

The Commission has decided not to use the fast-track process for this rule change. Despite the rule change request meeting the requirements for being fast-tracked,³⁷ the proposed changes are material and are occurring in the context of heightened reliability concerns, elevated inflation and increasing consumer electricity costs, as well as a more complex reliability policy environment.

While the fast-track process would provide for a faster decision thereby providing more time for market participants to prepare for the final market price settings, the Commission considers this rule change requires a higher level of stakeholder engagement and consideration than would be provided for under the fast-track rule change process which does not include two rounds of consultation.³⁸ The time difference between a fast-track process and a standard process is approximately two months given the extra consultation completed in a standard process.

The Commission therefore considers a standard rule change process is necessary to provide scope and time to consider the full range of issues relevant to the rule change and to engage with stakeholders to the degree necessary given the materiality of the proposed changes.

3.5 Considering a new emission reduction objective

On August 12 2022, Energy Ministers agreed to introduce an emissions reduction objective into the NEO.³⁹ This change aims to integrate emissions reduction and energy policy into the national electricity laws and provide greater clarity to the AEMC to consider emissions reduction in how it undertakes its functions. The new emissions reduction objective is currently being developed and we expect it to be implemented during this rule change.⁴⁰

Based on the drafting in the draft bill that was released for consultation in December 2022, including an emission reduction component in the NEO would compel the Commission to consider it as one of a number of components or 'outcomes' (alongside price, quality, safety,

36 The rule making process can be fast tracked if it meets the requirements set out in section 96A of the NEL which are that an electricity market regulatory body has: made a request for the making of a rule under section 91(a); and consulted with the public on the nature and content of the request before making the request.

37 As set out in section 96A of the NEL, the relevant requirements for a rule change to be fast tracked are that an electricity market regulatory body has: made a request for the making of a rule under section 91(a); and consulted with the public on the nature and content of the request before making the request.

38 The fast-track rule change process does not include a consultation paper process and proceeds directly to publication of a draft determination.

39 <https://www.energy.gov.au/government-priorities/energy-and-climate-change-ministerial-council/priorities/national-energy-transformation-partnership/consultation-proposed-legislative-changes-incorporate-emissions-reduction-objective-national-energy-objectives>

40 On 20 December 2022, the draft *National Energy Laws Amendment (Emissions Reduction Objectives) Bill 2022* and consultation paper were released for a seven-week public consultation.

reliability and security of supply) but also allow market bodies the discretion to weigh the various components when making decisions, as they currently do.⁴¹

The Commission notes that the Panel was guided by the current version of the NEO which doesn't include a emission reduction objective. Therefore, this issue was not directly addressed in the Panel's report and the Panel made a recommendation that minimises cost without explicitly considering emission reduction.

The Commission will consider whether emission reduction considerations warrant the making of a more preferable rule.

3.6 The Commission will consider the interaction of market price settings and jurisdictional schemes

The Panel's recommendation was made in the context of the ongoing implementation and development of jurisdictional and Commonwealth reliability schemes which also support marginal new entrant investment. The Commission intends to give consideration to the co-ordination and role of these different support mechanisms in this rule change process.

The Commission notes the Panel's observation that complementary reliability tools and mechanisms may be appropriate to limit the extent to which further MPC/CPT increases are required to address investment needs in a transitioning power system post 2028. In particular, the Panel made a number of observations on factors that may limit the use of higher MPC and CPT and justify the use of complementary mechanisms. These include whether:

- the increase in annual revenue variability, given increasing weather dependency, may make investment cases excessively challenging should investment solely rely on higher MPC and CPT.
- a very high CPT, required to incentivise long-duration storage, may not be bankable given it relies on revenues from extremely low probability events and potentially leads to unacceptable levels of systemic financial risk, and
- the structure and competition in Australia's current contract markets may not be sufficient for market participants to appropriately manage further increases in financial risk from higher market price settings.

The Panel considered a market with very strong scarcity price signals can also include other complementary measures to provide a higher degree of certainty for investments that are critical for maintaining reliability in a transitioning power system. The presence of such mechanisms should however enhance the scope and performance of a market rather than replace it.

⁴¹ Incorporating an emissions reduction objective into the national energy objectives, Proposed a legislative package to give effect to emissions reduction objective in the National Electricity Law, the National Gas Law and the National Energy Retail Law, consultation paper, 20 December 2022. <https://www.energy.gov.au/government-priorities/energy-and-climate-change-ministerial-council/priorities/national-energy-transformation-partnership/consultation-proposed-legislative-changes-incorporate-emissions-reduction-objective-national-energy-objectives>

The Commission is intending to work with jurisdictions and the Commonwealth with a view to putting forward a view on how market prices, jurisdictional schemes, and other complementary measures may collectively contribute to the future of reliability in the NEM.

3.7 The Commission may conduct further analysis on key issues.

While the Commission considers the Panel's recommendations to be well-considered, it has the responsibility of satisfying itself that the Panel's proposed rule, or a more preferable rule, promotes the NEO. The Commission intends to conduct additional analysis for this purpose and is considering the scope of the additional analysis it will conduct.

The Commission's current intent is not to replicate or redo the Panel's market modelling exercise in the absence of a compelling reason to do so. The Commission considers the Panel's modelling to be credible and in line with best practice. The Commission is however considering additional analysis that utilises, builds on, and possibly extends the Panel's modelling. The Commission is considering:

- **further analysis of the impact of the proposal on consumer bills** - The Commission is intending to undertake additional analysis to understand the cost impact of the Panel's proposed changes on end customers. The Commission intends to build on and extend the Panel's consumer cost analysis of wholesale cost and hedging impacts to enhance its robustness.
- **updating modelling assumptions** - This work may involve testing key modelling parameters to ensure that the results are robust to some uncertainty regarding these parameters. This may include additional cost of capital and marginal new entrant CAPEX sensitivities, including battery costs, price duration curve benchmarking, and emission cost impacts.
- **analysis of the Panel's recommendations in light of the emissions objective in the NEO** - This may include testing the impact of a range of hypothetical values of carbon emissions on the market price settings.

3.8 We may make a different rule to apply in the Northern Territory

Parts of the NER, as amended from time to time, apply in the Northern Territory, subject to modifications set out in regulations made under the Northern Territory legislation adopting the NEL.⁴²

The proposed rule would apply in the Northern Territory, as it amends provisions in NER chapter 3 that apply in the Northern Territory.⁴³

The Commission will therefore assess the proposed rule against additional elements required by Northern Territory legislation:

⁴² National Electricity (Northern Territory) (National Uniform Legislation) Act 2015 (**NT Act**). The regulations under the NT Act are the National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016.

⁴³ Under the NT Act and its regulations, only certain parts of the NER have been adopted in the Northern Territory. The version of the NER that applies in the Northern Territory is available on the AEMC website at: <https://energy-rules.aemc.gov.au/ntner>.

- *Should the NEO test include the Northern Territory electricity systems?* For this rule change request, the Commission will determine whether the reference to the “national electricity system” in the NEO includes the local electricity systems in the Northern Territory, or just the national electricity system, having regard to the nature, scope or operation of the proposed rule.⁴⁴
- *Should the rule be different in the Northern Territory?* The Commission will consider whether a uniform or differential rule should apply to the Northern Territory, taking into account whether the different physical characteristics of the Northern Territory’s network would affect the operation of the rule in such a way that a differential rule would better contribute to the NEO.⁴⁵

QUESTION 3: QUESTIONS ON THE COMMISSION’S DECISION-MAKING FRAMEWORK AND CONSIDERATIONS

- Is the proposed assessment framework appropriate for considering the Panel’s rule change request? Are there any other relevant considerations that should be included in the assessment framework?
- Are there any additional factors the Commission should consider when incorporating an emissions objective into its rule change assessment?
- Do stakeholders have any suggestions or views on the Commission’s consideration of jurisdictional scheme interactions with a higher MPC and CPT?
- Are there any additional pieces of analysis the Commission should consider undertaking to assess the rule change?

⁴⁴ Clause 14A of Schedule 1 to the NT Act, inserting section 88(2a) into the NEL as it applies in the Northern Territory.

⁴⁵ Clause 14B of Schedule 1 to the NT Act, inserting section 88AA into the NEL as it applies in the Northern Territory.

ABBREVIATIONS

| | |
|------------|--|
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| Commission | See AEMC |
| NEL | National Electricity Law |
| NEM | National Electricity Market |
| NEO | National Electricity Objective |
| NER | National Electricity Rules |
| NERL | National Energy Retail Law |
| NERO | National Energy Retail Objective |
| NERR | National Energy Retail Rules |
| NGL | National Gas Law |
| NGO | National Gas Objective |
| NGR | National Gas Rules |
| Proponent | The proponent of the rule change request |

A NEM RELIABILITY FRAMEWORKS OVERVIEW

A.1 Reliability in the National Electricity Market

A reliable power system has enough generation, demand response, and network capacity to supply consumers with the energy that they demand with a very high degree of confidence.

A.1.1 The objectives of the reliability framework

The core objective of the existing reliability framework in the NEM is to deliver efficient reliability outcomes through market mechanisms to the largest extent possible. In an energy-only market these mechanisms centre on pricing arrangements to provide financial incentives for participants (generators, retailers, aggregators and customers) to make investment, retirement and operational decisions that support reliability.⁴⁶

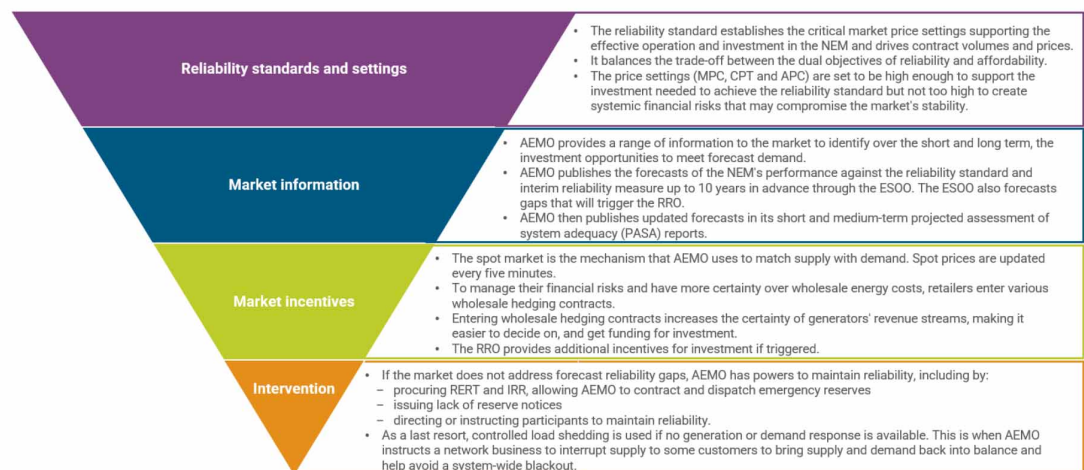
The NEM provides incentives for investment in new power system resources through scarcity pricing. During periods of supply scarcity relative to demand, spot prices in the NEM can be very high. These high prices provide operational signals for additional generation and demand response to make itself available for dispatch. It also indicates a need for future investment in new resources.

The market price settings, which are the subject of this rule change, define the limits of scarcity pricing, and the financial incentives available from the market to support investment. They are set at a level consistent with the NEM's reliability standard. The reliability standard (the Standard) in the NEM is a measure that expresses the efficient level of unserved energy (USE). USE occurs when there is a shortage of available generation and network capacity to meet end-user demand and customer load shedding is required.⁴⁷

46 In addition, AEMO provides information to participants on projections and forecasts relevant to reliability outcomes and also has tools that it can use to intervene, when needed, to maintain power system reliability consistent with relevant standards.

47 It is not in the long-term interests of consumers to have no USE. Such an approach would be inefficient as the investment and operating costs of supplying energy at certain times would exceed the value placed on it by consumers. The reliability standard is therefore the level of USE that seeks to minimise total system costs considering power system capacity investment and operating costs, as well as the cost of any USE that would be borne by consumers. The standard currently targets a maximum expected USE in a region of 0.002% of the total energy demand in that region for a given year.

Figure A.1: The NEM’s reliability framework



Source: AEMC

The efficient level of USE balances the trade-off between the cost of investing in power system resources and the value that customers associate with a more reliable power system.

A.1.2 Role of the market price settings in the NEM’s reliability framework

The market price settings limit the scope for the market price to rise and fall and therefore set the revenue potential available to support investment.

- The MPC places an upper limit on wholesale market prices that can be reached in any trading interval. The value of the MPC is specified in the NER and annual indexed with inflation. The MPC for the current financial year is set at \$15,500/MWh.
- The CPT is a threshold on the cumulative price for energy and frequency control ancillary services (FCAS) over a period of seven days beyond which an administered price period (APP) commences and the APC is applied. The CPT for the current financial year, indexed with the MPC, is \$1,398,100. This value represents the cumulative financial impact of 7.5 consecutive hours of market prices at the existing MPC.

The MPC and CPT share a common purpose. They protect the long-term integrity of the market by limiting financial exposure to unbounded high prices. Together the MPC and CPT are set at levels that are sufficiently high to support the investment required to achieve reliable outcomes consistent with the standard, but not too high to create systemic financial risks that may compromise the stability of the market.

The APC is the maximum market price (\$/MWh value) paid to participants that can be reached in any trading interval during an administered price period (APP). An APP occurs after the sum of the trading interval prices over 7 days cumulates to a level that exceeds the

cumulative price threshold (CPT). The value of the APC is specified in the NER and is set at \$600/MWh until 1 July 2025.⁴⁸

A.2 The NEM's transition to high renewable generation requires market price settings sufficient to encourage investment

The Panel's RSS Review and this rule change are occurring in the context of a period of physical and regulatory transition in the NEM. The Commission will be considering the impact of these changes including:

- Investment needs due to existing generator retirements and the transition between thermal generation and intermittent renewables and storage.
- A changing reliability policy environment with the implementation of jurisdictional investment schemes and the Commonwealth Capacity Investment Scheme (CIS).

A.2.1 The NEM is undergoing a transition requiring new investment to replace retiring generation

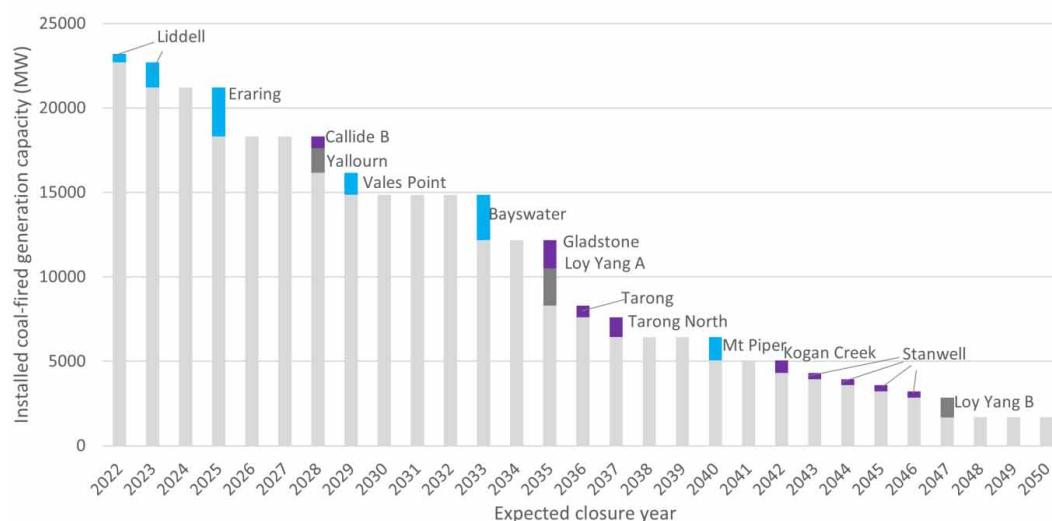
The NEM's reliability performance to date reflects the historic investments made in thermal coal-fired power stations that still form the bulk of the NEM generating fleet. Some of these thermal generators are approaching the end of their technical lives. Operation of remaining coal plant continues to be challenging due to the changing operating environment, particularly the impact of solar generation in the middle of the day.

Future reliability performance relies on new investment to replace the energy delivered by retiring generators and to meet load growth within the operating requirements of the NEM. To illustrate the scale of the change, the currently announced thermal generator retirement timetable is shown in Figure A.2. It indicates that 7,650 MW of dispatchable capacity is expected to retire by 2030 with 15,065 MW by 2040.

The market price settings will need to be set at a level that provides the right mix of dispatchable generation in the right NEM regions to maintain reliability in the context of generator retirements and the physical transition between thermal coal and high variable renewable generation.

⁴⁸ The APC was changed on 1 December 2022 in the AEMC's Amending the Administered Price Cap rule change. The AEMC elected to amend the APC on an interim basis in response to the APP and market suspension event that occurred in July 2022. Prior to 1 December 2022, at the completion of the Panel's RSS review, the APC was \$300/MWh. For more information on the Amending the Administered Price Cap rule change: <https://www.aemc.gov.au/rule-changes/amending-administered-price-cap>

Figure A.2: Announced coal fired generation retirement dates



Source: AEMO - Generating unit expected closure year - March 2023

A.2.2

The NEM's reliability policy environment is changing with the implementation of jurisdictional reliability schemes

State Governments have become more active in supporting new-generation investment to maintain reliability given thermal generator retirements. Generally, jurisdictional schemes provide some revenue certainty to support new investments and may supplement the amount of revenue required from market outcomes.

Jurisdictional reliability support schemes that have been announced, or are fully implemented include:

- The NSW Electricity Infrastructure roadmap, aims to deliver at least 12 GW of new renewable electricity generation and 2 GW of long-duration storage.⁴⁹
- The Victorian renewable energy target is to achieve 50% of electricity generated from renewable sources by 2030.⁵⁰
- The Queensland renewable energy target includes capacity targets: 25 GW VRE (22 GW new) by 2035 including 7 GW pumped hydro, 3 GW low emissions gas generation, and 11 GW rooftop solar, 6 GW home and business batteries.⁵¹

49 Further information is available at: <https://www.energy.nsw.gov.au/nsw-plans-and-progress/major-state-projects/electricity-infrastructure-roadmap>

50 For more information see: [https://www.energy.vic.gov.au/renewable-energy/victorian-renewable-energy-and-storage-targets#:~:text=Our%20renewable%20energy%20targets,-Victoria's%20current%20renewable&text=25%25%20by%202020%20\(achieved\),50%25%20by%202030.](https://www.energy.vic.gov.au/renewable-energy/victorian-renewable-energy-and-storage-targets#:~:text=Our%20renewable%20energy%20targets,-Victoria's%20current%20renewable&text=25%25%20by%202020%20(achieved),50%25%20by%202030.)

51 For more information, see <https://www.qld.gov.au/about/newsroom/queensland-energy-and-jobs-plan>.

- Tasmanian Renewable Energy Action Plan to produce 200% renewable energy by 2040 double existing renewable capacity to 8GW by 2035.⁵²
- The South Australian renewable energy target is to achieve 100% net renewables by 2030.⁵³

The Commonwealth government is currently designing a Capacity Investment Scheme (CIS).⁵⁴ The CIS is a Commonwealth revenue underwriting scheme intended to be available to all jurisdictions to support the entry of zero emissions dispatchable generation and storage technologies.⁵⁵

The NEM's current reliability framework does not take into account schemes such as these. The market price settings alone are intended to deliver efficient reliability outcomes. Jurisdictional investment schemes and market price incentives will complement each other in the short term to deliver reliability outcomes in the NEM.

This rule change is part of a larger reliability work program currently being conducted by the AEMC and other relevant bodies. The projects in this workstream each manage reliability risk over the short, medium and long-term, and include:

Projects managing reliability risk over the short term:

- Energy Ministers agreeing to extend the interim reliability reserve (IRR) to 31 March 2028.⁵⁶
- The AEMC's draft recommendation to extend the application of the interim reliability measure (IRM) to the RRO.⁵⁷
- The AEMC's consideration of the operating reserves rule change requests.⁵⁸

Projects managing reliability risk over the medium term:

- This rule change from the Panel to adjust the MPC, CPT and APC for 1 July 2025 to 30 June 2028.
- The AEMC's review of the retailer reliability obligation (RRO).⁵⁹
- The extension of the T-3 Ministerial lever for the RRO to all NEM regions.⁶⁰

Projects managing reliability risk over the long-term

52 For more information, see: https://recfit.tas.gov.au/renewables/tasmanian_renewable_energy_action_plan#:~:text=This%20ambitious%20goal%20aims%20to,as%20we%20do%20in%202022.

53 for more information, see <https://www.energymining.sa.gov.au/industry/modern-energy/leading-the-green-economyand> <https://www.safa.sa.gov.au/environmental-s-governance/energy>

54 For more information see: <https://minister.dcceew.gov.au/bowen/media-releases/capacity-investment-scheme-power-australian-energy-market-transformation>

55 The CIS design process has yet to be finalised. Further information is available at: <https://www.energy.gov.au/news-media/news/capacity-investment-scheme-power-australian-energy-market-transformation>

56 National Electricity Amendment (Interim Reliability Reserve) Rule 2022.

57 found [here](#)

58 found [here](#)

59 found [here](#)

60 ESB, *T3 Trigger for the RRO – Draft Bill*, 20 July 2022

- Work underway through the Energy Ministers Meeting on managing risks of the disorderly exit of coal generation.
- The Commonwealth Government's CIS.
- The Panel's review of the form of the reliability standard.

Despite being part of a broad range of work going being undertaken, this rule change will focus on the price settings as recommended by the Panel in the 2022 RSS Review.